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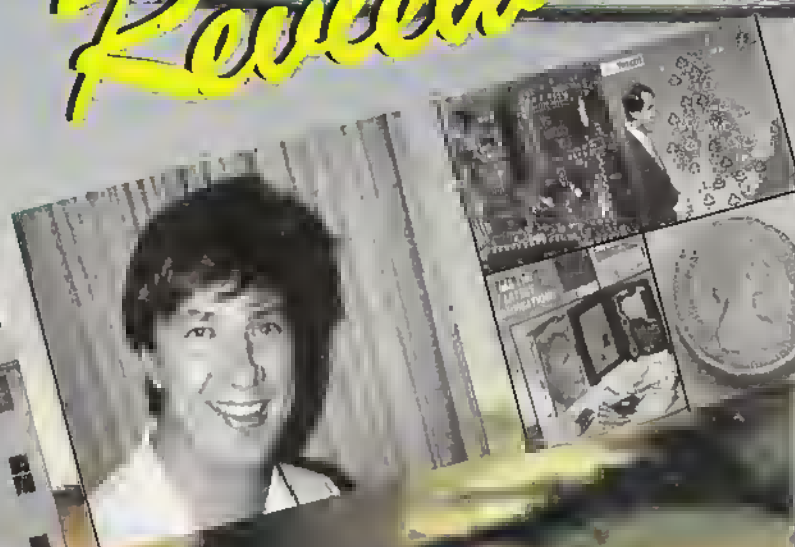
Review

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Contents

General

- 4 Ram Rumbles - news
38 Letters - More AMOS please! A3000 or A2000? Kill the C64?

Amiga

- 8 Notepad - New products - Ad Pro 2, TurboPrint Pro and lots more
12 Scram - A detailed look at the new SCRAM 500
16 Budget Digitising - Datel's Video Digitiser II
20 Pelican Press - Desktop publishing that is easy, fun and cheap
22 Amiga Basic Proof Reader - A smart way of checking errors
28 Computer Care - Part 1 - Keeping your computer in top operating order
30 Andy's Attic - How to deal with STACK, Diskdoctor, Clocks, Hard Errors
43 PD Update - Some of the best demos available in Public Domain
46 Amos Column - Part 3 - Gadgets and sliders
50 Amiga Basic Graduation Part 4 - Random Disk Files 2

C64/128

- 56 GEOS Column - More about GeoPublish, Cockroach Graphics Utility
59 C64 Column - Letters and answers on memory, printers, programming

CDTV

- 63 CDTV News Reviews - Sing along with Karaoke

Entertainment

- 65 That's Entertainment - News, Competition, Hints & Tips, Letters, Hall of Fame
69 Game Reviews - Starflight 2, Hard Nova, Necronom, Rules of Engagement, The Adventures of Willy Beamish, No. 1 Compilation
76 Adventurers Realm - Hints & tips, Problems, Help, The Dungeon, Review of Suspicious Cargo

**The Australian
COMMODORE
& AMIGA
Review**

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Advertiser's Index

ACL	29	Lazarus	47
Allens	13	LeeJan	34
Amiga P/D Ctr	66	Logico	23
Ami Tech	51	MacroSoft	36, 37
Brunswick	47, 60	Megadisc	54
CB Products	66	Mega Micro	43
Commodore		MVB	15
	40, 41, 61, IBC	Ozard PD	42
Computa Magic	14	PCM Computer Design	
Computer Man	2		19
Computermate	21	PM Developments	35
Classified	42	Pacronics	IFC, 4
Desktop Utilities	43	Parcom	21
Electronic Arts	QBC	Pelham	4
Express PD	66	Phoenix	45
Fonhof	19	Power Peripherals	
G-Soft	8		3, 5, 7, 9
GV Group/Wilcom	33	Prime Artifax	57, 58
Hard Disk Cafe		Rapisoft	13
	25, 26, 27	Rod Irving	42
Harris Hi-Tek	21	Shop 4	34
Interlink	31, 70	Sigmacom	17, 49
Kaolic Concepts	11	Unitech	32

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Editorial



Workbench 2.0 is finally shipping, although the price caught a few people by surprise. Buyers have paid anything from \$99 to \$149 - the correct amount being the latter.

Good news is the new manuals are indeed the same as the Amiga 3000 as mentioned a few issues back. This is a vast improvement over earlier documentation. Workbench, the SHELL and AREXX are all clearly discussed in a well illustrated, three-ring binder. All machines will start shipping with the new operating system before too long.

We all know Workbench 2.0 has been some time coming. However, Commodore have had an up-hill battle to try and sort out compatibility problems and during this time they have made some impressive additions to the original version 2.0 specifications. Our tests indicate that the majority of productivity titles are now compatible with version 2.04.

Entertainment titles could be a different story.

This year is fast shaping up as a milestone for the Amiga. Everyone is eagerly awaiting possible new machine announcements and third party companies are continuing to release sock removing hardware add-ons which provide amazing graphics power. PAL versions of previously only NTSC products are also starting to surface - such as DCTV.

This is a good indicator for the future, although I must say the pricing leaves a bit to be desired. The same product in the U.S. is about one third the price. The U.S. companies say the PAL version required re-engineering - and no doubt it did - but haven't they realised yet that the PAL Amiga market is umpteen times larger than the NTSC one they're in now? I think European products offer a lot more chance of bringing high powered 24-bit displays down to an affordable level.

Local Amiga developer, Gary Rayner, is rumoured to be working on a new 24-bit display device called the Opal - several versions are planned which should make this technology available to the mass market around the middle of this year.

With all that's new expected this year, The World of Commodore Show at Sydney's Darling Harbour will be an event not to be missed. Commodore have already booked the venue, so the show looks set to go on. Overseas exhibitors from last year's event have promised to return with larger stands and more products. Hopefully we'll see more local involvement too. Stay tuned for more information on events and products at the show.

In this month's issue Daniel Rutter takes a close up look at a new Australian expansion device for the Amiga 500 and George Kimpton checks over the Datel Digitiser which has finally become available downunder. It's good to see more low-cost add ons for the A500 appearing.

Next month we will have a review of the latest Action Replay cartridge and a write up on *Final Copy*, a new wordprocessor with full outline font technology.

Until then...

Andrew Farrell

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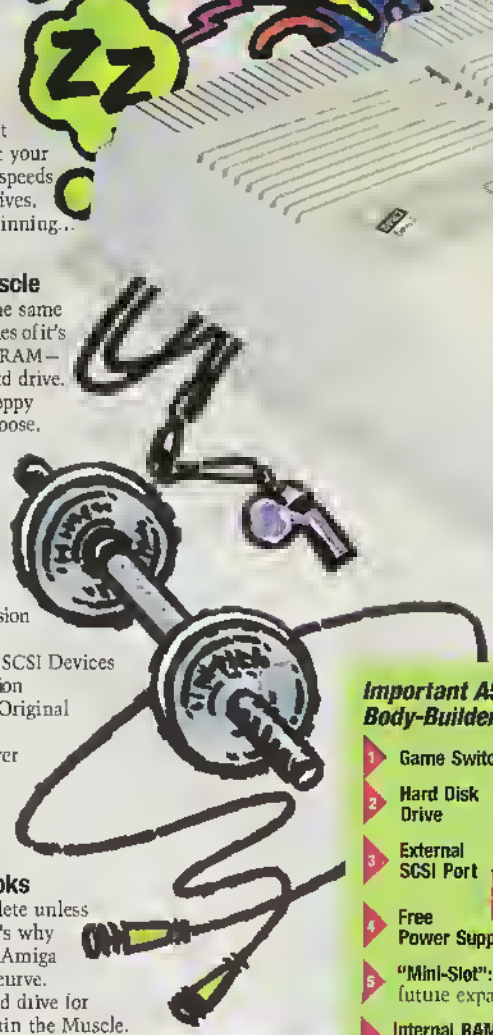
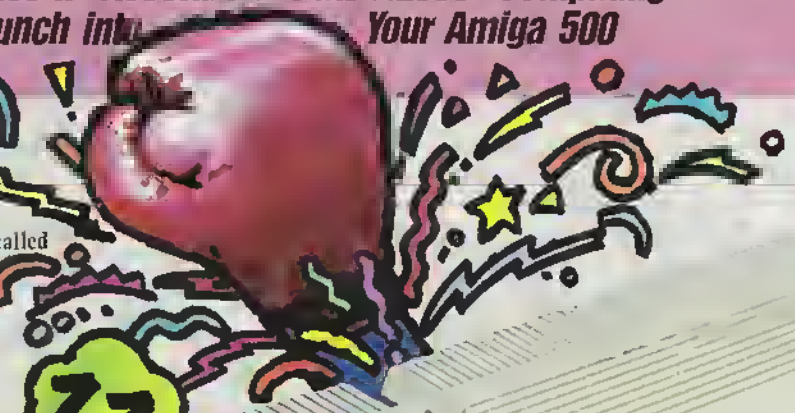
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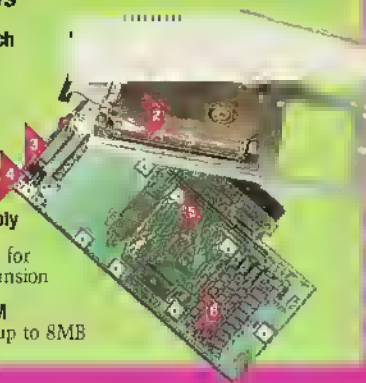
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UPDATE

It's finally here! *The World Series One Day Cricket Game* has now been released, and should be in stock at your nearest retailer. This game really has got the lot! Simultaneous split screen scrolling, full complement of international teams, overhead perspective (gull cam), over 430 different bowls, full range of batting strokes, variable game length, variable fielding layouts, coloured uniforms and Teams Editor/Creator. These are just some of the many options available, but above all else, there is action, fast, smooth animated arcade action, with all the strategy, all the skill and all the razzamatazz of the real thing.

Also available now is *Wordworth Version 1.1*, THE premier word processor for the Amiga. New features added in this version are Quick Type mode, improved spell checking operation, more adjustable page layout control, Postscript support, support for a vast range of printers internal fonts, outline font support and improved graphic handling abilities.

Registered owners of previous versions of *Wordworth* can upgrade to the latest version. Please contact Pactronics on (02) 748 4700 or 008 227 465 for details.

In Entertainment we are proud to announce the release of *Elvira The Arcade Game* on Amiga and C64; *Board Games inc. Monopoly, Risk, Scrabble & Cluedo* on Amiga & C64 disk and tape, and we have a brand new range of Budget titles which would be in your stores by the time you read this.

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Ram Rumbles

End of '91 Sales

As we all know, the Amiga came under heavy attack from both ends of the market place as 1991 came to a close. Despite everything, it survived the onslaught with hearty sales throughout the Christmas period.

The Amiga 500 fell to below the magic \$500 mark, only to rise back over it in mid-January.

The A2000 has now parked itself at under \$1000, with the HD version under \$1500 with the new A2091A drive controller and a fast SCSI drive.

Great value for money for Amiga heads, but still finding it tough to compete with the PC for sheer work-horse power, the Amiga looks set for some tough competition in '92. It's still the most fun around, but falling PC prices could start to change that. Amigas saving grace will be the arrival of Workbench 2.0 - now available in limited quantities through Amiga dealers - and the possible launch of new machines some time this year. We can only hope.

Off in CDTV land, the number of new titles looks set to explode, however there was little discounting of the price apart from dealers like Hard Disk Cafe. Although the \$1000 mark could be the reason for some of the consumer resistance to this new-fangled machine, no doubt the plain lack of understanding as to what it does could be having an impact. Time will tell.

If you are going to buy a CDTV player, make sure you go where they band out the free *Groliers Encyclopaedia* with the unit.

C64GS Flops Out

Unconfirmed rumours from the U.K. indicate that the Commodore C64GS ceased production.

This cartridge based C64 was Commodore's rather late attempt at getting a leg in on the game console market. Hoping to sell some 100,000 units in the first year, the decision to stop trying to throw this rather dated technology at the slick 16-bit machines now selling in the low end market was no doubt influenced by the fact sales barely reached 15,000.

Media Spottings

Keep those Commodore and Amiga spottings of machines we know and love in the media rolling in. (Things have been a bit quiet lately).

Andrew Gormly, a regular contributor to the Media Spottings section, posted us another assortment of sightings, including one in *Neighbours*. Andrew admits to never watching the show, however a friend who does saw one of the *Neighbours* cast receiving an Amiga 500 Starter Pack for Christmas.

Another sighting was in the movie *My Stepmother is an Alien*. In one scene an astronomer has in his bedroom an old C64 - the camera only gave us a glimpse of the machine. Has this astronomer seen *Distant Suns* on the Amiga? If not be should, it's a wonderful program and reason enough to upgrade.

In other sightings, Andrew Gormly notes a mention of CDTV in the World Book Encyclopedia's 1992 Science Year Book, under the heading of Interactive Multimedia. Thanks for the update Andrew, and we look forward to hearing about your European trip.

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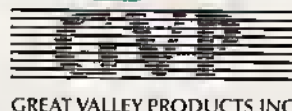


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Notepad Notepad Notepad

Art Department Professional 2.0

Version 2.0 has just arrived, complete with changes made since the November Cologne computer show in Germany. Upgrades for existing users will be direct from ASDG, costing US\$45 for *ADPro* bought since September 1st and US\$90 for *ADPro* bought before then, including shipping. Recommended retail price of the new version is A\$369.

The new release includes the ability to output 24-bit colour to colour preferences printers and 8-bit grey-scale images to black and white preferences printers. Jpeg image compression facility has been added, offering dramatic compression for storage of graphics. Several new file formats have been added including Windows BMP and QRT ray-tracing files. There's also support for more display devices including IV24, DCTV, HAM-E, Harlequin and new AREXX commands.

For more information call Desktop Utilities on (06) 239 6658.

CanDo 1.51; CDUG

Version 1.51 of *CanDo*, with minor modifications, will ship early this year. Registered users of 1.5 are being updated direct from the U.S. free of charge. The first newsletter for members of the CanDo User Group will include selections from the Innovatronics tech support BBS message areas. The first of Desktop Utilities, *CanDo* disks,

AustBBS 1, is also now available. Several local developers are now working with *CanDo*. For more information call Desktop Utilities on (06) 239 6658.

New from Sharp

The Sharp JX-100 is soon to be available again in Australia. The JX-320 has replaced the JX-300. Configuration for the Amiga is being investigated at the moment. The JX-320 is similar to the JX-300 but does interpolation to simulate 600dpi in the image rendered to screen and can interface to SCSI and parallel if the host system permits. There is no plan to use these on the Amiga at the moment, partly because they are both slower than GPIB, which is what ASDG's *Professional Scanlab* uses.

The JX-700 has been superseded by the JX-730, which is similar but has a 500K print buffer. It will be much more attractive for colour graphics, now, with *Art Department Professional 2.0*'s 24-bit colour output module for preferences printers.

CrossDOS 5.0

CrossDOS will provide for high density drives in its next version, enabling Amiga users to read/write files in 1.44mb MSDOS format. Other formats available on the high density drives may include 1.76mb AmigaDOS and 20mb optical. The release date for the new version of *CrossDOS* will depend on availability of relevant hardware for

testing. If this goes to plan, supplies should be available in the first quarter of 1992.

For more information call Desktop Utilities on (06) 239 6658.

MathsMaster 2.0

A new version of *MathsMaster* is in preparation. It will provide facilities for tracking a high scores total and for mixing operations in a series of questions, as well as some new graphics and other changes.

Registered users should back-up the program disk and return the original to Desktop Utilities, P.O. Box 3053, Manuka ACT 2603, so they can receive the new version as soon as it is available.

CD-ROM Package

New Horizons Software have announced a licensing agreement with The Station, an Austin, Texas based dealer, to allow The Station to manufacture and sell a CD-ROM package that includes *ProWrite 3.2*, *Flow 3.0*, *DesignWorks 1.0*, and *ProFonts 1* programs on a single CD-ROM.

The Station has developed a complete turnkey system using the CDTV player - a "CDTV Personal Workstation", calling it Odyssey. The system includes a CDTV unit, 1084S monitor, printer, external floppy drive, modem, mouse and keyboard, and a CD-ROM package containing *ProWrite 3.2*, *Flow 3.0*, *DesignWorks*, *ProFonts 1* and a large quantity of public domain software on a single compact disk.

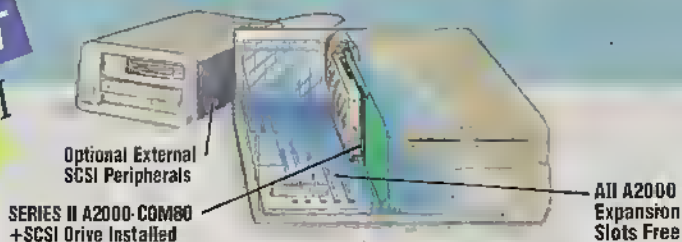
"We looked around for the best productivity software applications to have on the CD and found the source right in our own backyard. New Horizons has provided quality productivity applications to the Amiga market since the computer's inception. Their software is the icing on the cake for this workstation to fill a huge need in the educational marketplace", said Darwyn Hanna, owner of The Station.

The suggested retail price for the Odyssey is \$US1995 and includes New Horizons CD-ROM software.

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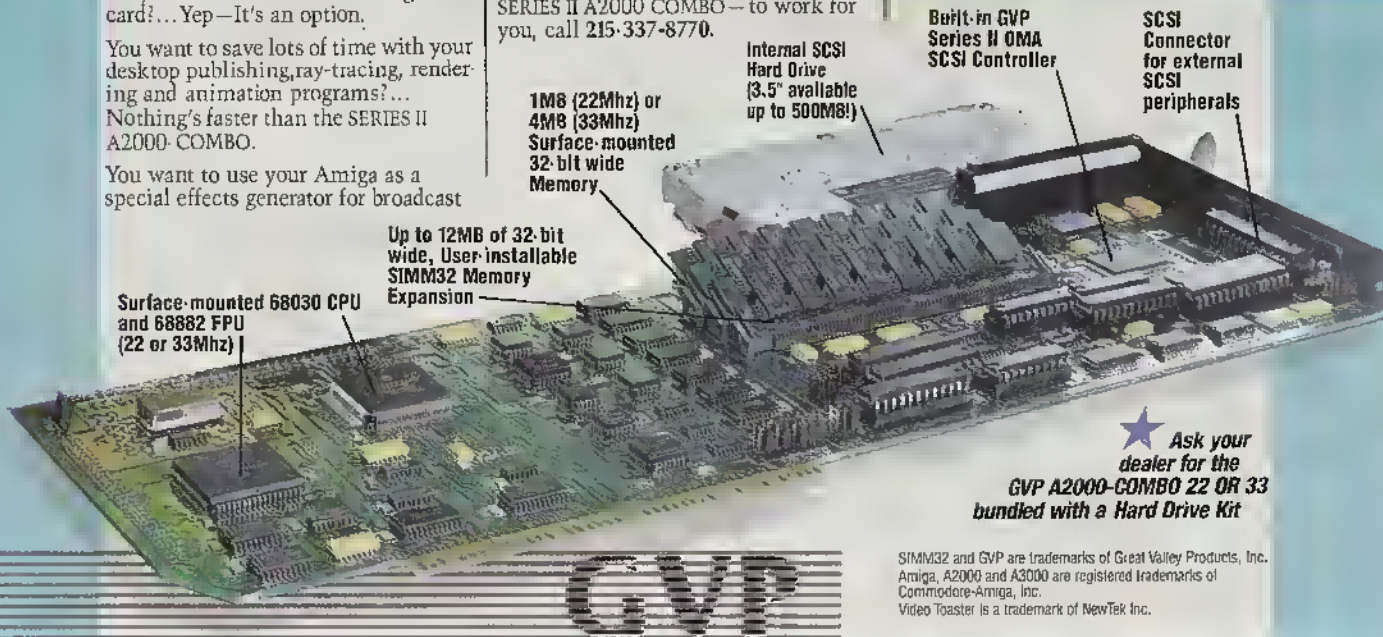
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Although no plans were announced for local distribution of the Odyssey, it would not be surprising to see similar compilations of software appear once Commodore start shipping the A690 CD-ROM drive for the Amiga 500.

TurboPrint Professional

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RRP \$140. From GSoft Pty. Ltd. (08) 254 2261 or fax (08) 254 2261. Dealer enquiries welcome.

Digiview Image Fixer

Another nifty item from GSoft is a small box which simply plugs in between your DigiView and the camera. The improvements are remarkable. No more masses of horizontal lines in your pictures. If you have this problem with your camera and DigiView, don't go out and buy a special black and white camera that will only be used with DigiView, get an Image Fixer.

Available for \$79 from GSoft (08) 254 2261 or fax (08) 221 2261.

DCTV PAL in Australia

Color Computer Systems have been appointed a distributor of DCTV PAL by Activa International the world-wide marketing agents for the product. Don Sforcina of CCS says that "It will liter-

ally provide 24 bit graphics for the masses. It's a mini computer graphics revolution on the Amiga that has no equal on other computer platforms."

Initial sales have been excellent and much interest has also been shown in Color Computer Systems exclusive 'DCTV PRO PACK'. The PRO PACK includes DCTV PAL, *Draw 4D Pro*, a new multi-featured 3D animation program that renders directly to DCTV, and a 90 minute tutorial video tape *DCTV: A Guided Tour*.

Color Computer Systems will be marketing a full range of video output converters, DCTV add-ons and utilities. Mid year they'll be releasing a dual channel 16 bit, 48KHz sampling, CD quality audio and DCTV realtime editing and playback system using Amigavision. All sound and video will be played back in realtime directly from hard disk. DCTV PAL RRP \$1,295. For more information phone (09) 349 6492.

continued on page 10

NEW YEAR SPECIALS

AMIGA BEETLE MOUSES ! \$65 High resolution (320DPI) precision mouse for the Amiga. Flexible cord and ergonomically designed.

Available in a range of colors!

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Awesome improvements to your printouts, allows full colour separations, greatly improves output on color printers, superb.

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CanDo v1.5	\$155
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Can't find it anywhere? Call us!	

Available NOW.. **ATonce PLUS \$499** An upgrade to the very popular ATonce board. Now runs at 16MegHz giving Norton S1 of 16!! Supports Windows 3, Dos 5, full 640K Dos memory, boots direct from Dos partition on any Amiga Dos compatible hard drive.

Coming soon... THE ANSWER!

From the creators of the Audio IMAGER (us!) comes The ANSWER! This amazing little unit allows anyone with an Amiga and a Sound Sampler, (any type) to turn their Amiga into a sophisticated answering machine. It answers the phone, plays sound files onto the phone line, samples line activity, responds and takes messages!

TWO MEG CHIP RAM ON YOUR AMIGA 500?

Yes, now it's possible. With the new AX-RAM FOUR you can have TWO Meg Chip RAM PLUS an additional 2 Meg FAST RAM, PLUS a clock calender all in the normal A501 slot of your Amiga 500. \$540 (with 4Meg installed) \$350 (with 2.0 meg installed).

What's new in AMIGA AUDIO?

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ATonce v1.27

The Ultimate IBM-AT-Emulator
for the Amiga 500
AT the lowest price

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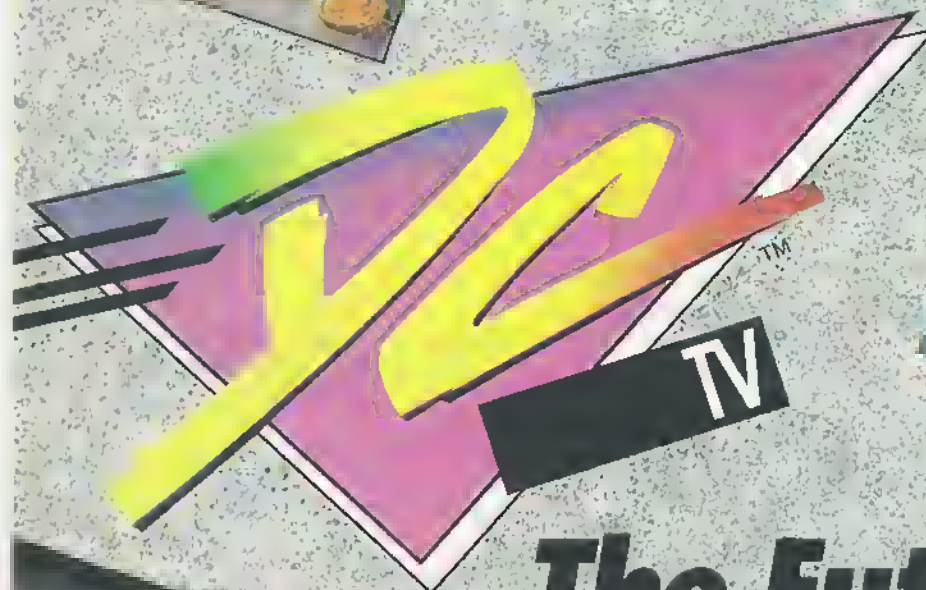
80286 processor + Multitasking
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Boot from any hard drive
Support all Amiga hardware
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Fit this into your A590 and fly

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All photographs are of
actual DCTV screens.



The Future Is Here

- ▲ Paint, digitize and display full color **PAL** video graphics on any Amiga.[®]*
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* Min. 1 Meg. required

DCTV[™] (Digital Composite Television) is a revolutionary new video display and digitizing system for the Amiga. Using the Amiga's chip memory as its frame buffer memory, DCTV[™] creates a full color NTSC display with all the color and resolution of television. Sophisticated true color video paint, digitizing and image processing software are all combined into an easy to use package included with DCTV[™]. DCTV[™] also works with all popular 3D programs to create full color animations that can be played back in real time.

DIGITAL

C R E A T I O N S

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Virtual Reality

Spectrum Holobyte has launched a series of virtual reality games under their new subsidiary, CyberStudio. The product line is called Virtuality and the first games are intended for arcades.

In Virtuality, players wear a seven-pound head piece and a four-pound control unit around their waists. The stand on a small platform while connected to the game units. Movements are controlled by the player's hand movements on a specially designed joystick.

In the first generation of the games, the graphics are a bit blocky and movements can be jerky. Graphics are polygon-based, though they will be updated as better technology comes out.

Consumers can expect to pay about \$1 per minute to play. Spectrum Holobyte expects to release the first Virtuality titles available to personal computers in about three years.

Charles Hill, of AmReport International, contacted Spectrum Holobyte and asked what was being used to drive these units: Intel-based, Macs, Amigas or custom hardware.

The response:

"... Virtuality systems are using a customized Amiga setup. I don't know which cities the systems will be first appearing in.

I'm sure that when Gilman Louie, our CEO, referred to "home PC versions" he was referring to the personal computer market, rather than MS-DOS specifically."

ARexx Script-Writers Wanted

Work is well advanced on the next version of *Contact*. Users of the current version 1.2 should act quickly if they want to submit an ARexx script. They receive a free upgrade if it is included in the new release (effectiveness and usefulness of the script will be the criteria, taking into account whether it duplicates the functions of existing or competing scripts).

The next release of *Contact* will include numerous features requested by users, as well as some extra ones thought of by the author and publisher, and will be accompanied by an expanded manual.

For more information contact Desktop Utilities on (06) 239 6658.

Mouse Balls

From the *South China Morning Post* we reprint the following article on computer mouse maintenance, with absolutely no comment whatsoever:

If a mouse fails to operate or should it perform erratically, it may need a ball replacement. Because of the delicate nature of this procedure, replacement of mouse balls should only be attempted by properly trained personnel.

Before proceeding, determine the type of mouse balls by examining the underside of the mouse. Domestic balls will be harder and larger than foreign balls. Foreign balls can be replaced using the popoff method. Domestic balls are replaced using the twistoff method.

Mouse balls are not usually static sensitive. However, excessive handling can result in sudden discharge.

It is recommended that each replacer have a pair of spare balls for maintaining optimum customer satisfaction, and that any customer missing his balls should suspect local personnel of removing these necessary items.

Yet Another Magazine-on-a-Disk

Amiga News has joined the array of magazine-on-a-disk publications battling for space in DFO. Of course, disk magazines lack the read-on-a-bus feature or the handy wrap-dead-fish option, however they are proving to be popular amongst devout Amiga users.

Amiga News presents information on a screen by screen basis, as opposed to the usual text file and reader of most other disks. The first issue was a bit light, but much more is promised in future editions, which will be published bi-monthly around the 15th of each month.

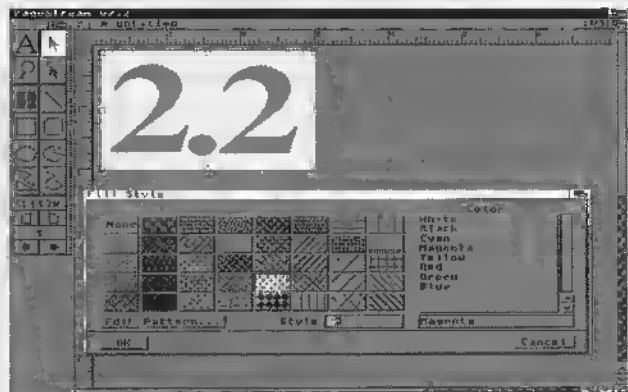
If you want to know more, or you wish to place an IFF image-ad in the next issue, write to Australian Amiga News, PO Box 499, Ashgrove 4060.

PageStream 2.2

Shipping any time now, *PageStream* 2.2 boasts an totally new interface, many additional drivers for importing files, improved 24-bit support and much more.

For more information call Computermate on (02) 457 8388.

PageStream 2.2



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Hardware plus Software:

\$79

Upgraded version of New Dimensions' acclaimed hardware and software stereo sound sampler. Simply plug your sound source into the unit and fire up the sampling software. New multi-tasking software features a MIDI sequencer, and a host of exciting special effects including real-time echo, phasing, pitch shifting and other voice synth effects.

"...no-nonsense, low-cost, easy-to-use system..." 81%, Amiga Format, September 1991

Audio Engineer Version 2

This awesome sampling & editing software is packed with powerful new features.

Audio Engineer software only	\$99
Audio Engineer Plus	\$369
Audio Engineer Junior	\$189

P.D. Software Paks

Kaotic Concepts supports the intentions of public domain authors, namely to allow wide distribution of software with minimal copying charges. All Pak prices include postage and handling. These disks plus FISH and many more are available individually for \$2.50 plus \$1.00 P&P for any size order. Katalog disks \$2.50 including postage. All disks supplied are Nashua brand. Blank disks \$15 per box of 10. Nashua disk boxes (hold 90 3.5" disks) \$17.

Kaotic Text Utilities

7 disks; text editors & utilities

• Wordworth demo

\$17

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3 disks with over 20 video utilities and fonts

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7 disks of stunning Mandelbrot & Julia sets

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7 disks of Brain Taxing Games

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Kaotic Games Pak 3

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Kaotic Games Pak 4

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Megaball, Missile Command, Shell, Dragoncave, Ctr. 7-Tiles, Orid-Runner, Rebound, Invaders, MiniBlat

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Kaotic Arcade Pak 3

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All 6 Games Paks **\$60**

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3 disk set containing fonts & utilities

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2 disk set with 15 icons Programs and many icons ready to use

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C64

KCS Power Cartridge

POWER RESET Freeze and backup any program

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Printer Tools, screen-dumps, rotate print, self-detects printer interface

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Tape Tools work 10 times faster

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Say goodbye to your printing nightmares with this new software package from Germany

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high speed SCSI controller (900kb/sec or 5 times A590 speed); SCSI thru port

up to 8 MB RAM on board via Protar autoconfiguring RAM modules

auto-booting, auto-parking, silent operation; Games switch disables hard drive but retains RAM for memory-hungry games, protecting the hard drive against viruses.

Quantum mechanisms with 64 Kb cache in DC version. Seagate mechanisms in standard version

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Clock/Calendar

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Amiga Beetle Mouse

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DigiFixer

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Combines colour splitter and DigiView compatible digitizer in one box. The package features saturation control, S-VHS or composite input, manual or auto colour select, external power pack, cables for connecting Auto-Select Module and ColorView software.

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Video Breakout Box

With S-VHS, RCA and Scart inputs and outputs, this unit allows any video equipment to be connected together.

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Phoenix Motherboard for A1000

Includes 1MB Agnes, 2MB RAM (1MB chip), 68881/2 socket, SCSI controller, A2000 expansion slot and video slot, 8MB daughterboard connector, battery-backed clock, sockets for 4 Kickstarts (1.3 supplied), drive swap switch.

\$945

SCRAM 500

Power to the People

Following last month's article on the benefits of expanding your Amiga, Daniel Rutter now takes us on a detailed look at the new SCRAM 500.

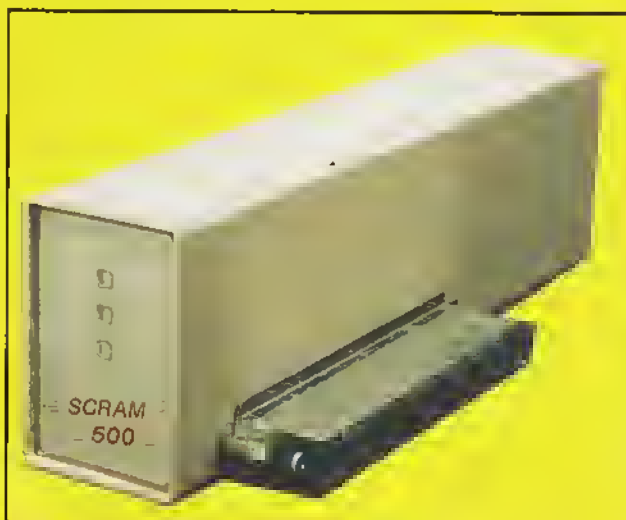
The A500 doesn't look like a real computer. It looks like a hyperthyroid C64. People don't take it seriously, despite the fact that it has all the basic gubbins you find in the A2000, just without the hefty case, loud fan and expansion slots. So, theoretically, anything you can do to a 2000 you can also do to a 500 - it just costs a bit more.

In the past, this bit more tended to get close to the price difference between the 500 and the 2000 thanks to hefty premiums being put on separate power supplies, cases, cables and so forth. Virtually anything you could plug into your machine was made somewhere other than here, and hence got further sluggish by exchange rates and import duties.

All this has changed, with the advent of MegaMicro Technology's SCRAM 500. In case you haven't heard of this company, it's run by Norm Jackson, who did a lot of work with M.A.S.T. (the Tiny Tiger hard drives were Jackson's brainchild, among other gadgets). This is an impressive pedigree, and the SCRAM 500 lives up to all expectations.

Specifications

So what's it do, I hear you ask. The SCRAM 500 is a combination RAM expansion, SCSI interface and (optional)



68030 accelerator for the A500 or 1000. RAM can be installed up to 8MB - so with your 500's included RAM and the stock 512K expansion you've got the maximum 1.x addressable 9MB. The SCSI interface is absolutely vanilla (no funny voltages tied to non-standard pins) and should hence work with anything. The 68030 option, which is not yet available but is coming Real Soon Now, will fit inside with zero fuss.

Which brings me to the case. The SCRAM 500 is a great deal more elegant than many such devices - it's only about 45 x 70 x 250mm. When slotted into the A500's expansion bus it extends to the back of the machine, forward to about the level of the Control key, and stands less than a centimetre higher than the case. Neat.

The case is heavy-gauge steel, the back panel has a SCSI D-connector and an autoboot switch (to be disabled for 1.2 or lower). The front panel features power, RAM and disk LEDs. This is nice. The extra disk LED means your hard drive (with its noisy fan) can be stowed out of sight behind the desk with a remote power supply switch and you still know when it's being accessed.

The RAM LED is also a good idea - it lets you know when your RAM disk is being accessed and if something is doing a lot with RAM when it should just be sitting there; it's also nice to see it light up every time you hit a key, flicker while you move the mouse and lock on when AutoCLI's screensaver cuts in. So I'm a gadget freak. So sue me. The SCRAM itself draws all its power from the A500.

Incidentally, MegaMicro also makes a SCRAM 2000, which is a card-mount version of the same thing and also features a 16 bit "SuperSCRAM" option, but I can't comment on this since I didn't get one to play with, possibly because I don't have a 2000.

Installation Software

The SCRAM comes with a disk called "SCRAMPREP", which along with all the appropriate libraries and devices to get a SCRAM-driven hard disk running also contains the excellent ScramPrep program, which allows the configuration, low level formatting, error checking and monitoring of statistics of any connected SCSI device.

It's all very intuitive and easy to use, even for the rank beginner, whilst still retaining full control over cylinder-by-cylinder partitioning, dos-type and filesystem for those who want it. A program very well written and essentially bulletproof, which does everything you need to do.

With the SCRAM I also got for review a "SCRAMdrive

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With hundreds of satisfied customers around the country, you too will be amazed at the high quality of software contained in our Games Packs! Volume 2 contains 8 disks full of Amiga public domain and shareware games. From action, strategy to role playing and trivia; there is something in this pack for everyone. Over 40 new games are crammed into the pack, some of which are: *BattleMech*, *Bullrun*, *Castle of Doom*, *Chess*, *Dtris*, *GridRunner*, *Invaders*, *Megaball*, *Rebound*, *Trek Trivia*, and many others! A small amount to pay compared to the amount of enjoyment you will get out of the pack. For only 68 cents a game, it's an offer not to miss!

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Suitable for both Amiga novices and veterans alike, the RapiPack is a collection of high quality software which everyone can use. Volume two of the RapiPack contains six disks in total; two disks full of games, one disk packed with applications (including a word processor and database), one disk containing a superb graphics and sound demonstration, and another containing a sound editor. A utility disk contains a vast number of handy utilities which will make using the Amiga so much easier! Full loading instructions are provided with the pack.

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52". This is a 52MB 3.5" Quantum hard drive (in this case the ProDrive LPS 52S, but the 105S for twice the storage is also available) in an obviously Macintosh case, with a SCSI passthrough, internal power supply, pushbutton SCSI address selector and IEC captive mains connector.

Mr Jackson is looking for a cheaper case, in which users can install their own drive if they so wish, but for the time being you're stuck with the rebadged Mac unit.

Not that there's anything wrong with that - everybody knows that Macintosh stuff is superbly engineered, whatever other gripes you may have - except price, an admittedly important factor.

Future Possibilities

Mr Jackson also told me of some interesting new ideas he's got in the pipeline - like, for example, using the new submini 2" hard drives designed for

laptops, and mounting one actually inside the SCRAM 500's case, with power from an AC plugpack since these tiny drives use so little. Thus, in one box the size of Castro's daily cigar supply, you could have 8MB of RAM, a 100MB hard drive, and a 68030 accelerator! He's also looking into magneto-optical storage, and floptical disks - watch this space.

On taking the SCRAM 500 apart, I was struck by its simplicity. One board, with a take-off socket for the bus connector, sockets for the ZIPRAM's, four tastefully named custom chips - Bertie for autoconfigure logic, Cyril 8 for SCSI autoboot, Griswold for RAM refresh and master timing generation and Humphrey for miscellaneous RAM control, sundry other bits and pieces and a neat front and back panel.

The whole thing can be slid out of the case after removing the bus connector board and its shroud, the work of a couple of minutes.

Documentation

The manual is simple and comprehensible and features complete schematic diagrams for the SCRAM 500 in the back, so that, as Mr Jackson told me, wherever you take your SCRAM, you or a serviceman will know what plugs into what. Good work.

What more can I say? It works. It continues to work. It hasn't hiccupped once.

A magnificent piece of engineering, for a very reasonable price; if you're looking to expand your 500 (or 1000, or 2000 - MegaMicro have tested it on every machine going, and it's invulnerable to Phocnix A1000's, accelerated 2000's, you name it), there is really now only one way to go.

The SCRAM 500 with 2MB of RAM (as tested) is \$499; the SCRAM drive 52 is \$799, from MegaMicro Technology, PO Box 511, Bondi Junction 2022, fax (02) 3631246.

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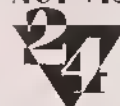
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Budget Digitizing

Datel's Video Digitiser II

Digitising graphics from video can be a great source of material for use in your own work - providing of course you respect copyright laws. George Kimpton checks out one of the latest contenders, similar in power to the popular Vidi frame grabber.

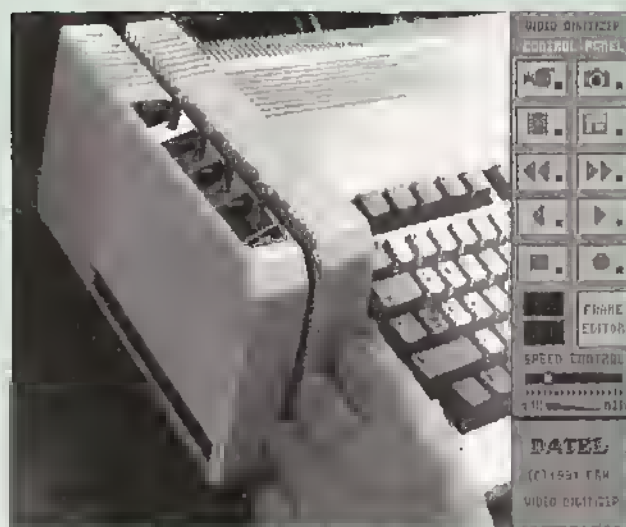
Many people enjoy fiddling around with graphics - some of you have probably got your feet wet with *DigiView*, spending hours tweaking the pictures on your monitor screens, trying to achieve perfection. A slow and cumbersome process. There is a way to get lots of pictures, of a slightly lower quality, which can also be used for animation using a Frame Grabber.

You could lash out and buy one of those great systems advertised in the American magazines - but who has that sort of money anyway? If you're fortunate enough to have a VCR which has digital freeze frames, you could use it to step through the frames and digitise them one at a time using *DigiView*.

Alternatively there are budget priced frame grabbers which offer reasonable performance - the most recent of these to become available in Australia is the DATEL Electronics Video Digitizer II from Macro-soft.

This new addition comes in two modules, the digitiser and an optional colour splitter, the splitter costing around \$250 extra.

The software in Video Edit mode allowing you to modify an animation



Digitise mode for frame grabbing or digitising single images or a complete animation

Installation

Fitting is easy, you just remove the cover on the expansion slot on the side of the Amiga 500 and plug the digitiser in. If you have the colour splitter it just plugs piggy back style into the pass through connector of the digitiser. These pass through connectors allow the modules to be inserted between a hard disk, and the A500 computer. A single interconnecting cable passes the signal from the splitter to the digitiser.

There is also a version suitable for the 2000 series where the boards plug into the internal expansion slots. You must specify which version you need when ordering as there are physical differences.

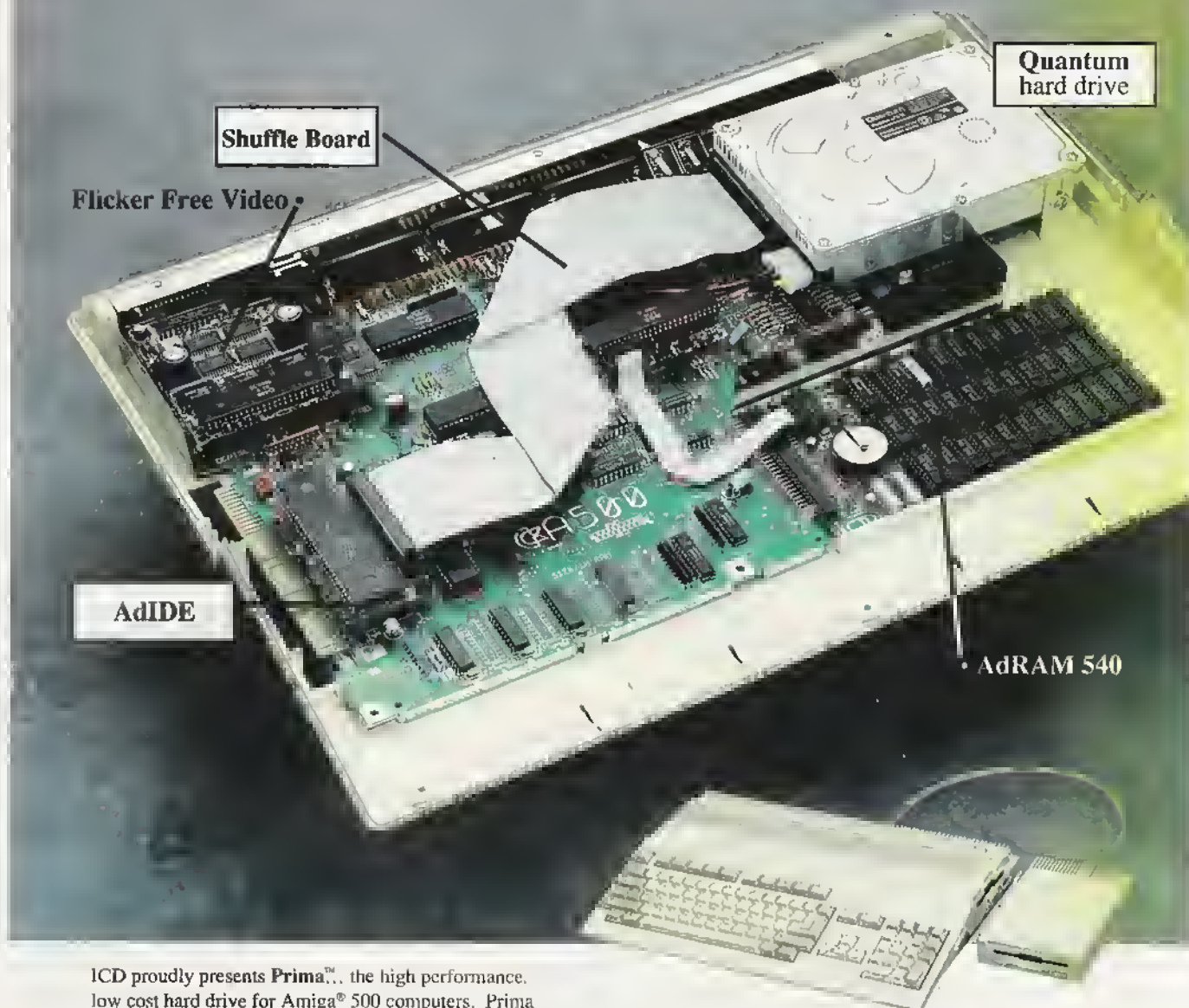
For those with an A2000 or better the colour splitter option is not available and there are no plans in the pipeline.

After everything is plugged in, you boot up with the digitising software and away you go. It is also possible to boot up with some other software such as *DPaint* and then load this program as you need it providing you have enough memory available. A fat Agnus would be useful here.

With only one Meg on my A500 both programs could be loaded - but not worked on. One point of interest is that the hardware appears to be transparent when booting up and running other programs so it could be left plugged in all the time.

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Performance

The digitiser grabs frames at the rate of 1/50th of a second with the screen update varying in accordance with the number of grey scales or bitplanes used. Screen update speed can approach 15 frames a second using grey scale. Frames can be grabbed as singles, sequences or time lapse sequences as required. These can be saved, depending on format, as a sequence, IFF or raw data for playback or processing.

The only hardware adjustments for the digitiser are the brightness and contrast which when adjusted correctly allow the full range of 16 grey tones to be displayed when operating in black and white mode.

On booting, the editor screen comes up displaying a working area of 256 X 256 pixels plus a toolbox with a format similar to that on most tape recorders. One thing that strikes me as odd here is the choice of screen size. Certainly the program allows you to do full screen IFF Saves, but to do this it actually stretches each fourth pixel to give 320 X 256 pixels. One other thing to note here is that the digitising system only works in low resolution format.

In the edit screen toolbox are some extra buttons which allow the display of a running sample of the incoming video, frame by frame, for sequence recording or a single freeze frame depending on your needs. You can also step through the captured frames or do a continuous run through by holding down the button.

The playback speed is adjustable with a slider control. It is also possible to display what they call a half size image in the lower right corner of the screen should you wish. In actual fact it is a quarter screen.

One slightly confusing point in the manual, which incidentally is rather sparse, is the continuing reference to 16 colour frames when you are working in grey shades unless you have purchased the colour splitter. I think it really means 16 grey shades if the splitter is not fitted.

Options

The options menu allows you to

choose whether you wish to work in Grey Scale, Sepia or colour palettes. If you do not have the splitter fitted and you go for colour, you get colour all right, but they are rather weird false colours linked to a temperature scale based on the brightness levels. You can also view the screen using a reduced colour palette for speed while retaining full bit plane data for saving and so on.

To speed recording or frame grabbing it is also possible to blank the screen for the duration of the sequence recording. The options also allow you to choose the IFF save format, either 256 x 256 or 320 x 256 pixels, imprint the frame number into the top left of the picture and/or move the screen to a buffer for editing and vice versa. The display option allows you to choose the number of bit planes displayed.

Editing

The edit menu allows the usual cut, copy, paste, brush and thankfully UNDO. The brush is picked up from the cut or copy buffer and can be dropped on the screen or drawn with as in *DPaint*. One point to note is that using SAVE apparently clears the screen buffer of any cuts or copies previously stored there.

The Effects menu allows you to switch positive images to negative and vice versa. You can invert the screen horizontally or flip it vertically, compress it horizontally or vertically and clear the screen to either black or white for editing work.

Frame Editor

The Frame Editor is accessed through a button in the Editor Screen which opens a dual display. These two windows are the Record/Playback Screen and the Information and Edit Screen - the latter providing buffer images or operating data. To the right are a series of buttons and readouts providing frame sequence information for editing.

Below this are a comprehensive range of work buttons. These buttons allow you the normal recorder facilities such as Play, Rewind, etc, plus the editing tools. Editing in the sense applicable

here is the stepping through a sequence, looking at and/or removal of specific frames and replacement with another one if required. It is possible also to set up time lapse recordings of frames.

One strange feature of this screen is the strip of eight miniature monitor screens across the bottom with different colour patterns in each and which do not seem to have any practical purpose.

Utilities included on the boot disk include two Player programs and a shrink facility. The main Player displays the 256 x 256 frame sequence the same as shown with the digitiser and at the same speed as it was saved. Loop mode is the default. NOTE: it will not run if there is not sufficient memory to load all saved sequence frames.

The other player - Player1 - program is similar in operation but uses miniature images one quarter the size of the normal screens. This is to save memory by using compact files. The other utility - Shrink - produces these miniature frame files. These player programs can be installed on your program disk for showing as needed.

Conclusions

Generally pretty easy to operate once you get the hang of the non standard symbols for the control buttons. It is a pity it only operates in Lo-Res and 16 shades of grey. The odd ball screen size is a bit of a nuisance but there are ways around this such as brushes and their ability to be shaped and sized in the various paint programs. Definitely not for the professional but very useful for the enthusiastic amateur and at an affordable price.

Colour Splitter

As I mentioned previously, this hardware module just piggybacks on the digitiser. A single lead with RCA connectors is provided to bridge between the Splitter and the Digitizer. There are four additional adjustments, saturation and red, green and blue intensities. There is also a 5 pin DIN output connector for future expansion or use with alternative systems.

A new boot disk comes with the splitter. Hard Disk installation is provided for. This disk does away with the Frame Editor and supplies a new Control Screen which appears to be solely concerned with grabbing single frames whether colour or black and white. You can grab a single frame at any time while watching a continuously updated colour or black and white display. Screen updates are said to be in around one second for colour.

Operating Modes

A choice of operating modes is available with black and white, eight, sixteen or HAM colour modes of display being selected with the appropriate control button. It is also possible to grab either

red, green or blue filtered frames should the need arise.

The menus are similar to that on the digitiser disk with a few differences. Loading is only from the Datel Raw Format. Saving is either in the Raw format or as IFF, again with the choice of frame size. Incidentally Hot Keys are supported in most menu functions this time.

With the colour facility there are new palette options available which allow palette colour adjustments, default palettes and selected display colour modes. Colour distribution within the frame can also be displayed.

The usual editing facilities, cut, copy, paste and brush are available again with the addition of the ability to display the material residing in the cut/copy buffer

before using it. The same Effects menu items, as found in the digitiser, are also available here.

Conclusions

I was unable to test the colour splitter at the time of writing but it seems a reasonable price and sounds good providing it lives up to expectations arising from reading the manual. It would appear a wise addition to the digitiser if only because of the HAM facility.

Remember there is no colour splitter for the A2000 series just a digitiser.

Recommended retail price on the frame grabber is \$262. For more information call Macro-Soft on (08) 234 5050.

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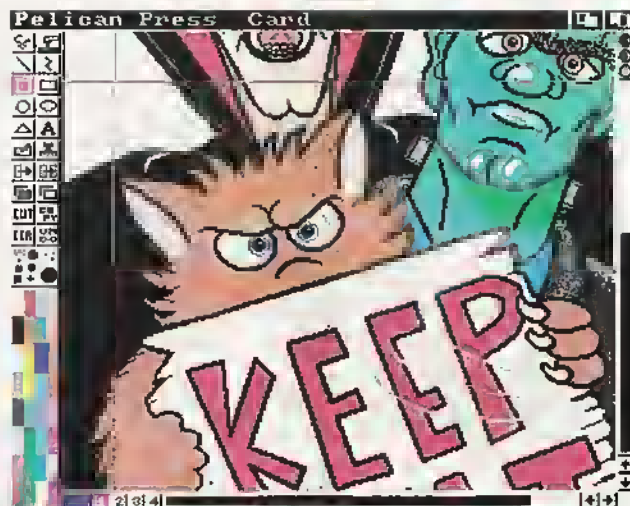
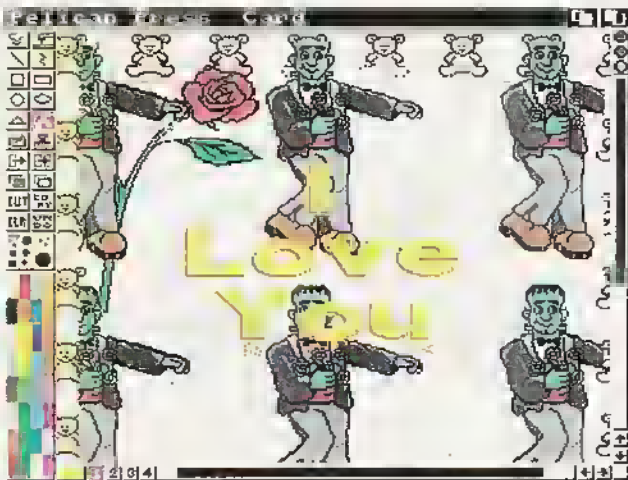
Desktop publishing for fun need not be cumbersome. Pelican Press proved to Stephen J Eames there is life after Deluxe Print.

When I first sighted Pelican Press, I didn't pay a lot of attention to it. Pelican Press seems to have maintained a low profile - with little promotion by the local distributor. However, being a curious type I eventually asked the sales assistant for a demonstration and I was immediately impressed enough to buy the package.

Once at home I settled in for what I thought would be a long learning session only to find that by following the tutorial I had practically mastered the program in 15-20 minutes. With further reading I realised that this was more than a simple print package - it was a drawing and paint program as well.

The package consists of three disks - the program and two of clip-art - and two manuals, one of which explains the programs operations whilst the other contains hardcopy of all the graphics and fonts available in the package.

Opening the manual you are not confronted with a huge amount of technical jargon. Instead, after a word about making backups, they dive right into the program.



Poster mode - notice the paint-like gadgets

Off To The Press

Pelican Press can help you create posters, signs, notes, cards, calendars, and banners. *Deluxe Print* and *PrintMaster* are very similar, however **only Pelican Press** includes a full functioned drawing and paint system.

Also if you need to, you are able to view the full range of clip-art categories, before placing it in your design from the one menu requester.

Once you have chosen the relevant clip-art category, you are returned to the work screen for art placement exactly where you want it. If you decide to incorporate another image you can select it from your chosen category by using the space bar and stamping it into place with the left mouse button. It's as easy as falling off a log.

But wait, there's more. How does vertical banners, books, comics, newsletters, name tags, rebus puzzles, fax sheets, letterheads, puppets wrapping paper and mobiles sound?

How do you create all these things so easily? Basically, it comes down to manipulation of the various category sizes when printing. When printing you have the choice of three printout modes - colour, greyscale and outline, plus you are able to manipulate the eventual size of the finished product from postage stamp size, to posters 40 feet high. You can choose from preset sizes or calculate your own desired sizes. The program tells you how many A4 sheets are required.

Working With Graphics

Object manipulation is the key to Pelican's success. A host of gadgets provide simple point and click control so you can fiddle to your heart's content. You can reduce or enlarge the size of backgrounds before final placement in your creation and if you are not happy with it you can return to the placement gadgets and revise your layout with a minimum of fuss. You

The manual encourages you to explore all possibilities and incorporate other clipart if desired. The only criticism here is that the manual does not explain how to remap image palettes to the default palette of *Pelican Press*.

The program won't print effectively in banner mode using Epson JX80 driver (white banding occurs) but will enable you to print high density images using most of the printer drivers provided.

I use Pelican Press on a 1.2 WB, 1 meg machine with external drives and a Citizen 200GX 9 pin colour printer. I am able to gain very clean graphics printouts, choice of three printout styles (colour, grey scale and outline) in all formats.

The Pelican Press package is distributed by DataFlow on (02) 331 6153. RRP is \$149.95.

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AmigaBASIC ProofReader

The most tedious part of copying a program from a magazine is searching for the inevitable typographical errors which occur. Here's a smart solution from Leicester Hibbert.

Normally you have to alternately read the program listing on the screen and then refer to the list in the magazine. Soon your eyes start to lose focus, you start to lose your place, your patience and ... you need *ProofReader*!

We Amiga owners have an unfair advantage over most other computer users - our computer can talk.

So let's get it working and have it read back our entered program as we proof-read against the program listing in the magazine.

When I started playing around with this idea, I had the SAY TRANSLATE\$ command reading unprocessed list files. This was a good start, but I soon discovered that the Amiga's best guesses at how to pronounce some of the AmigaBasic keywords were amusing to say the least. Also some punctuation marks and other symbols were totally ignored. You are sure to discover other words or symbols which may be added to the vocabulary of this program.

To use *ProofReader*, the program to be checked, (assume it is called "my.prog"), must be saved as an ASCII file.

If you have saved the program in the normal compressed binary format (e.g. SAVE my.prog from the output screen, or using the pull-down SAVE or SAVE AS from the Project Menu), you will have to prepare by loading the program you wish to check, and then from the output screen type.

SAVE "my.prog",A

Surrounding quotes are required here. This will re-save the program back to disk in the ASCII format. (See page 8-

128 in the *Amiga Basic Reference Manual* for details).

Then load and run *ProofReader*, which will ask you for the name of the file to read. Enter the program name, and soon *ProofReader* will start reading out the program listing to you. At any time you can pause the reading with the space bar, and either continue from this point or any other place in the listing. To help find your way around the listing, program line numbers are added to what you see on the screen, but the actual program list is unaltered.

***Amiga owners have
an unfair advantage
over most other
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ProofReader scans the program listing one line at a time looking for the keywords or symbols stored in the array Symbol\$. If one of these is found, it is replaced by its phonetic equivalent from the array Text\$. As an example, if a program line reads

PSET(x,y)

the SAY TRANSLATE\$ function would read it as "set x y", mis-pronouncing PSET and ignoring the brackets and the comma. But when processed by *ProofReader*, the line would be translated to "pee set, left bracket, x comma y right bracket," and would sound correct to the ear.

Here's how it works.

Load Arrays:

ProofReader starts by setting up the arrays Symbol\$, Text\$() and ProgLine\$(). There are 24 key-words and their phonetic equivalents which are loaded by the FOR-TO-NEXT loop into Symbol\$() and Text\$() respectively. The array ProgLine\$() is set to a dimension of 1000 to cater for a fairly large program, but its size may be altered to suit either smaller memory availability or larger program size as required.

Be careful to enter the spaces and punctuation marks correctly in the DATA list. They produce the correct stress.

GetFile:

Next the program of interest is read into the array ProgLine\$(), with i counting the number of program lines.

ReadFile:

In the main program loop, j is the line counter. The first program line is transferred to A\$, then the line number and the program line are printed to the screen.

Apostrophe:

The first check is for an apostrophe at the first position. If found, the line is a REM statement, and the apostrophe is replaced by the word REM with an exclamation mark, to produce a stress on the spoken word.

Quote:

The next check is for quote marks, indicating a text string. As quotes are located, the quote counter is incremented. For each opening quote the counter is odd and for each closing quote the counter is even. This controls the placement of the words "quote!" or "!" un quote!" as the case may be.

Main:

This is the heart of the program. Here each program line is analysed and if any of the key-words in the array Symbol\$() are found, they are replaced by the phonetic equivalent from the array Text\$().

The FOR-TO-NEXT loop in Main:

steps through the key words one at a time, searching with the
linek=INSTR(a\$,Symbol\$(x))

If the word is not found, k will equal 0 and the next key word is searched for, but if the word is found, the variable k points to its position. The next line breaks the program line into two sections - the part to the left (L\$) and the part to the right (R\$) of the key-word. The key word is discarded and its phonetic equivalent is inserted, then the line is re-assembled in its new form. Next the search for the same key-word continues for the whole line. Now the whole process repeats, looking for the next key-word from the list until the process is complete. The outcome is a complete program line with all key-words or symbols replaced by their phonetic equivalents. (If you insert the line

PRINT a\$

just before the label Say.Trans: you will see as well as hear the result). After the line is read, the quote counter is checked, and if it is odd, the warning "no closing quote." is added.

Check:

Before completing the loop and continuing with the next line, the space bar is checked to see if you want to pause the program.

The "A" problem.

The SAY TRANSLATE\$ function will pronounce the letter "A" as "uh" if it is found alone or at the beginning of a word it does not recognise. Unfortunately, A is used often as a variable in many basic programs, hence the attention given to it in *ProofReader*. This will make the variables sound correct, but will affect any A-words encountered. I suggest you try the program with and without the A processing. Put a REM in front of the fourth DATA line, and change the variable Number to 21 to see the effect. If you come up with a clever algorithm to overcome the problem, send it in.

Over to you. If you want to add more words to the data list, they should be added with their phonetic equivalents to the DATA list, and the variable Number, in the Load Arrays: block and presently set to 24, changed to the new number of data items.

ProofReader:REM by Leicester Hibbert

CLS

PRINT "The program you want to read must first be saved in ASCII format.
PRINT "See page 8-128 of Amiga Basic Reference Manual for details."
PRINT : PRINT "The line numbers are inserted for your convenience."
PRINT "they are not part of the program." : PRINT
PRINT "Use the space bar to stop the reading at the end of the current line."
PRINT

Load Arrays:

number=24
DIM Symbol\$(number),Text\$(number),ProgLine\$(1000)
FOR x=1 TO number
READ ss,\$\$
Symbol\$(x)=ss:Text\$(x)=\$\$
NEXT x

GetFile:

PRINT "Press [RETURN] to list files"
INPUT "or enter name of file to read ";FileName\$
IF FileName\$="" THEN FILES:GOTO GetFile
OPEN FileName\$ FOR INPUT AS #1
i=1
WHILE NOT EOF(1)
LINE INPUT #1,ProgLine\$(i)
i=i+1
WEND
CLOSE #1

ReadFile:

j=0
loop:
j=j+1:a\$=ProgLine\$(j)
PRINT j;"a\$"

Apostrophe:

k=INSTR(a\$,"'"):IF k=1 THEN a\$="iem!"+MID\$(a\$,2)

Quote:

count=0

QuoteLoop:

k=INSTR(a\$,CHR\$(34)):IF k=0 THEN main

count=count+1

insert\$=" quote!"

IF count MOD 2 = 0 THEN insert\$="un quote!"

L\$=LEFT\$(a\$,k-1):R\$=MID\$(a\$,k+1):a\$=L\$+insert\$+R\$

GOTO QuoteLoop

main:

FOR x=1 TO number

parse:

k=INSTR(a\$,Symbol\$(x))

IF k=0 THEN NotFound

L\$=LEFT\$(a\$,k-1):R\$=MID\$(a\$,k+LEN(Symbol\$(x)))

a\$=L\$+Text\$(x)+R\$

GOTO parse

NotFound:

NEXT x

SayTrans:

SAY TRANSLATE\$(a\$)

IF count MOD 2 = 1 THEN SAY TRANSLATE\$("no closing quote.")

check:

is=INKEY\$:IF is<>" " THEN continue

COLOR 3,1:INPUT "Enter new line number or <RETURN>

to

continue:"j

COLOR 1,0:PRINT

IF ln=0 THEN loop

ln=ln+1:j=ln

continue:

IF j=1 THEN END

GOTO loop

DATA

":," cowlon remf ",," comma ",," ?"," question mark "

DATA "^^" to the power of ",," #"," number ","GOTO"," go to "

DATA "GOSUB"," go sub "

DATA "a","ay","a","ay","(a","ay "

DATA "\", back slash ".:," point ".:," cowlon "

DATA ";", semicowlon "(", left bracket ",)", right bracket "

DATA "[", left square "]", right square "{", left brace "

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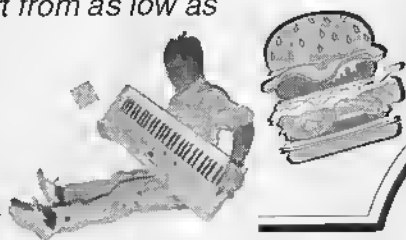
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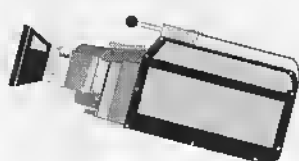
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Setting The Record Straight
Workbench 2.04 was to sell for \$99. Unexpectedly, it turned out to be \$149.95. I think it's important our loyal customers understand why this happened. At the last minute, Commodore decided to ship the upgrade by plane rather than boat. If nothing else, this fact alone assured a price increase. However, even at the new price, Workbench 2.04 is top value. The new version includes a mammoth manual which completely replaces all existing documentation. We would have loved to sell this much improved operating system at \$99, but our cost price ended up above the original expected retail price. So, we were really stuck with the new higher price or not buying them in at all. We endeavoured to fill back orders as fairly as possible, however there is still a big shortage of stock. Hopefully that will have changed by the time you read this!

- Karen

TOTAL

Computer Care

Part 1

Welcome to the first of a new series on caring for your home computer. This series is the result of extensive research and study of ways to keep your computer system in top operating order with help from Kevan Fitzakerley.

Each part will contain information on how you can perform a preventative maintenance program without the need for any technical know-how.

You will soon realise as you read the various chapters, the importance of reading all the relevant books and manuals that are included when you purchase computer equipment.

Unpacking

Most people who buy computers rush home with their purchase, rip open the box and throw aside the packaging, instruction manuals and so on. They attempt to put everything together and if the plugs fit the sockets, and when the power is turned on, if the light comes, on they assume that everything is right. Right? Wrong!

This initial stage of setting up is probably the most important. The packaging is designed to protect the hardware during transit, so it is important to keep this packaging just in case you need to move any or all of the equipment over any great distance.

The manuals that come with the various types of hardware are there for your benefit. These manuals explain how to correctly set up each part of the computer system. And as the saying goes: "When all else fails, read the instructions".

Also included are the warranty or guarantee cards, you should read these cards and post away any forms that need to be sent, to register your purchase with

the manufacturer. In most cases you will find that there is an authorised repair agent in or close by where you live.

What If It Doesn't Work?

With the number of Amiga computers being sold today it is likely that some of these machines may be faulty at the time of purchase. If it happens that you are unfortunate enough to receive a machine that doesn't perform as it should, what do you do? Rush back to the store where you purchased it and abuse the salesperson? Phone Commodore and abuse the receptionist?

What you need to do is completely read the instructions and follow the steps set out in the manuals, because most problems arise from not fully understanding how to connect everything together.

If you have followed the instructions completely and your Amiga still doesn't perform, you should contact the store where you made your purchase and explain exactly the problems you are having and remember, stay calm.

The staff of these stores are in most cases trained to help and give advice, so give them a chance to rectify the situation. In most cases if a machine is faulty at the time of purchase the store will normally exchange the item for you.

If on the other hand you have owned your Amiga for a period of twelve months or more, it is time to think of giving it a service. Few things made today last any longer than 1-2 years without giving

some sort of trouble. It is possible to avoid costly repairs and loss of time being without your Amiga by following a few basic guidelines performing regular preventive maintenance.

After Warranty Service

You can take the machine to an authorised service centre for repair or you can do it yourself.

Computers of any brand are a highly sophisticated piece of equipment and when you start fooling around with the internals of the machine you automatically void all warranties.

In your operating manual, you will find a section on caring for your Amiga and associated items, like software storage, dust and smoke hazards and so on. By performing the items listed in this section of your operating manual you will find that your machine and software will operate well for longer.

Apart from the operating manual instructions on caring for your Amiga, there are other things you can do to keep your computer in top operating order.

Understanding Your Amiga - Start Up

The Amiga is a great home and small business computer, but it is only as good as the operator and the software provided for it.

When you switch on the Amiga you are greeted with a hand holding a disk, this symbol simply means the computer is asking for a disk to be inserted in the drive. No special commands are required, because once the disk (providing it is bootable) is inserted in the drive everything is done automatically for you and the program or part of it is loaded into the computer's memory.

It is important for you to understand WHY and HOW these things happen and by understanding why and how things operate, you will obtain a general knowledge of various parts of the Amiga so as to be able to perform preventative maintenance and be aware of possible trouble spots.

Room For Failure

Any type of internal electronic or mechanical repairs or modification, unless you have been trained in this area, should be left to a qualified person to perform.

Most mechanical failures occur from wear and tear on the moving parts, like on/off switches and drive-heads. Failure of these kinds cannot be avoided, but they can be contained in various ways.

Electronic failures rarely happen. This does not mean that they don't happen, but if they do they usually happen within the first 24 hours of use, and it is usually attributed to electrical current and heat build up. But there are external sources that can cause you problems, like dampness, power surges, magnetic fields, overheating and static electricity, etc.

Software failure can occur by various means. For instance, leaving disks exposed to magnetic fields, or direct sunlight, dust and liquids are just a few examples. They do happen and can cause the software to fail to operate as it should due to damage to the media on which the software is stored.

Every piece of computer hardware that you buy comes with its own set of instructions and operating guide, and within these pages there will normally be a section on how to care for each particular piece.

A typical Amiga computer system could include the following pieces of equipment.

1. KEYBOARD, 2. MONITOR, 3. EXTERNAL DRIVE, 4. HARD DRIVE, 5. SOFTWARE

The main area of preventative maintenance should be directed to the software or the electronic media on which most programs are stored (eg. floppy disks or hard drives). This is the easiest area to begin with and it may be surprising to know it is also the most neglected area of computer care.

Once software is damaged, it is difficult to determine, when problems arise, whether it is a software or a hardware failure, so it is extremely important to protect your software before serious defects happen.

Your software can be damaged by any of the following examples.

1. HEAT & HUMIDITY, 2. GREASE, 3. OIL, 4. STATIC, 5. MAGNETIC FIELDS, 6. DUST, 7. DIRTY DRIVE HEADS, 8. SMOKE, 9. SCRATCHES ON THE DISK SURFACE, And of course VIRUSES.

What You Can Do

Let's have a look at ways you can keep your software in good order. If you follow these steps you can be sure to minimize any problems.

1. Keep software disks away from extreme heat and try to store them in an area where the temperature doesn't change too much.

2. Maintain a proper level of humidity.

3. Your fingers contain natural oils, so avoid touching the disk surface at all costs.

4. Keep disks away from stereo speakers and any type of magnetic fields.

5. Your disks should be stored in dust-proof containers.

6. Keep all liquids far away from your disks, many a disk has been ruined by coffee being spilt on it.

7. Avoid areas where your disks could be subjected to heavy smoke or other airborne pollutants.

8. If your drive-heads are dirty they can scratch the surface of the disk, so you should invest in a good quality head cleaning disk or something of a similar nature. PLEASE NOTE: Disk heads should only be cleaned when needed.

9. Protect your software from Viruses. There are many commercial and Public Domain virus checkers around to remove viruses. The easiest way to avoid catching a virus is to make sure that your disks are write-protected before you insert them in the disk-drive.

If you have any areas of computer care you would like to see covered, please write to me care of the magazine. Until next issue, have a trouble free month.

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For Beginners

Andy's Attic

by Andrew Leniart

Welcome back to my humble Attic. This month's column has been devoted to answering the many queries that you all have sent in over the last few months.

Note that if you don't see your own letter in these pages it does not necessarily mean that your query has not been, or will not be answered. I endeavour to answer all readers' questions, but sometimes it's just plain easier and takes less space to do it with a general reply to the same query from three or four different readers. So keep the feedback coming. The column is written with you in mind so be sure to keep telling us what it is you want to hear. The address to write to is:

Andrew Leniart, Andy's Attic, P.O. Box 1335, Hoppers Crossing Vic 3030.
Okay, now on to your letters.

Problems with Stack

B. Litchfield of Ultimo in NSW writes:

"Dear Andrew, I do not know whether it is me or not but a few of your tutorial notes just don't seem to operate when executed the way you set it down.

"One particular problem I'm having sorting out is your example on setting the stack size in a shell. I have tried every conceivable combination in my startup-sequence with nil results. I've tried Stack 10000, stack 10000 STACK 10000 and so on. Each time I check the size in Shell

it comes up at 4000. Can you inform me of what is the correct form of entering a change of stack size in the startup. Sincerely, B. Litchfield."

REPLY: Okay, first of all, it makes no difference whether you enter any Cli command in upper, lower or mixed case. Stack, STACK or StAcK will all work equally well.

Where your problem lies is that you are changing the stack size in the startup-sequence Cli only and not in the Shell which you are firing up later on. Issuing the command Stack 10000 in your Startup-Sequence will set the stack size for 'that particular' Cli to 10000. However that is only useful if you are launching a program from within your startup-sequence that requires a larger stack size.

To get a stack size of 10000 in your Shell, then what you need to do is edit the Shell-Startup file located in your 's' directory. Using your favourite text editor, edit this file. Make a blank line at the very top of it and enter STACK 10000. Each time you fire up a shell, it looks at the contents of this file and executes the commands within it for the Shell which you are using. My Shell-Startup file looks like this ...

Stack 10000

Prompt "%N,%S>" alias to endcli alias

Icon Changelcon

Type alias CDT CD DH2: alias A CD

DH1:ACAR/Cli-Tutes alias W WC -W Cli-

Tute18 alias car dh2:3

Line 1 sets the stack size for the shell to 10000.

Line 2 gives me a prompt that tells me which directory I am in.

Line 3 is an alias set up to close a shell simply by pressing lo as I got tired of typing endcli. The rest are other alias' that I have set up to make life a bit easier for myself with various PD utilities that I often use.

Note that if you choose to use the above example in your shell-startup file, you should only include the first three lines. The rest will be useless to you. Hope that helps clear things up a bit.

DiskDoctor

Simon Strudwick of Morphet Vale in SA writes the Attic for solutions to these complaints and comments.

"Andy, I am writing about a small problem I have with the Cli when using *DiskDoctor*. The program runs through alright but sometimes comes up with a message like "xxx now unreadable" where xxxx is a number usually in the high 900 up to about 1100. What does this mean?"

"Also, about the *DirUtils* you told about, you said that *DiskMaster* was a commercial program. But *DiskMaster* V3.0 says that it's fully public domain. I don't know if it is the original settings or if it's been changed, but if it isn't PD, could you please print a reply so I can erase it. Hope you can help."

REPLY: The message that *DiskDoctor* is giving you is simply advising you that *DiskDoctor* has found a block (Number xxxx) on the disk which is corrupt to the stage where it is no longer readable. This is an informative message only to advise you that the information that was contained in that block cannot be recovered.

It is possible that the disk that you are doctoring will now be unusable with the Amiga once *DiskDoctor* has finished with it. I.e. If there is a Hard Error on the disk. If that's the case, read on down below where this topic is gone into in a bit of depth.

In regards to *DiskMaster* V3.0, while it is possible that someone has written a

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directory utility and named it *DiskMaster V3.0* and made it public domain, it is highly unlikely. Usually, what these things consist of are hacked versions of commercial software where someone has hacked into the code of a commercial program and changed a few things around to make the product appear as though it is public domain. With some of the fancy Hex editors freely available in the PD libraries, this practice unfortunately is not all that hard to do and happens quite frequently. Without seeing the software concerned, it's impossible for me to tell you for sure whether you have an illegal copy of *DiskMaster*. Your best bet would be to go to a local reputable software distributor, ask them to have a look at the disk and ask their advice. To be on the safe side, use another directory utility until you're sure.

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Amiga Clocks

Rod Gaal of Waitara in NSW had this to say in his last letter.

"Dear Andrew, Something you may be able to explain to me in simple beginner's terms and that is, is it possible to program a clock into the computer so that when I boot up from the Hard disk, the time shows up continuously up in the right hand corner? There may be others out there in computer land that would benefit from your answer, so I was hoping that perhaps you could cover it in your monthly column.

"Many thanks, Rod."

REPLY: Sure thing. As long as you have a battery backed up clock in your Amiga, then it's a piece of cake.

You should have a clock in the Utilities drawer of your 1.3 Workbench which we can use to do the job. However, you will first need to obtain a little public domain program called *RunBack* by MicroSmiths Inc from one of the PD libraries advertised in each issue of ACAR if you don't already have it. The reason for this is that the clock program supplied with Workbench 1.3 does not detach itself from the Cli, therefore will not allow your startup-sequence Cli to close once you run it from there. That's where *runback* comes in handy.

A handy little proggy that allows programs like this one to be run as background tasks which everyone should have a copy of in the C directory of their workbench. Once you have placed a copy of *RunBack* in your C directory, do the following.

1. Open up a Cli and type
"ED S:Startup-Sequence"

This will fire up ED, the resident workbench text editor and load your startup-sequence ready to be edited.

2. Using your arrow keys, move the cursor down till it's sitting on the last line of the script file which should read "Endcli > Nil" or similar. Tap the return key to create a blank line above this command.

3. Move your cursor back up to this blank line and type in the following command

*Runback Sys:Utilities/CLOCK DIG:
ITAL2=400,0 12HOUR*

4. Once that's done, save the changes by pressing the ESCape key first followed by X and press return. This will cause ED to save the changes and exit back to the Cli you started him from.

5. That's it! Give the Amy the 'ol three fingered salute, (reboot) and you should end up with a digital clock in the top right corner, just a little to the left so as not to cover up the Workbench screen's front and back gadgets.

If all does not go well, make sure you entered the command exactly as shown and check for typing errors. I just tried it here and it worked fine. If you're not happy with the position that the clock appears in, experiment with the 400 and 0 parameters in the above example. These are the X and Y parameters which tell the Amiga where on screen you want the clock to be.

There are a couple of other options you might like to try. eg:
CLOCK DIGITAL2=400,0 24HOUR
SECONDS

The above will display the time in a 24 hour format just like in the Army and will also display the seconds ticking by while, CLOCK DIGITAL 2=400, 0 24 HOUR SECONDS DATE will make the clock display cycle between the time and the date every couple of seconds.

To get a gust of the full arguments available with Clock, just type CLOCK ? in a shell.

Experiment with it. Life is too short. Try everything!

What's Binary?

Judging from recent mail, it seems a few of you have gotten a little confused when looking through a PD catalogue of say the Fish collection and wondered what was meant by the term "Binary Only" at the end of the descriptions of programs. Whenever you see "Binary only" referenced in regards to a disk or a particular program, all it means is this:

When a program is written in "C" or similar, it is usually compiled with a special compiler which turns the source code (or words) of the program into "Binary". I.e: The executable program. This will not stop you from using the program or disk. As a matter of fact, it

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actually gives you the means to use it.

So when you see "Binary Only" written in the catalogue about a particular disk or program, it simply means that the disk only contains the executable part of the program (the actual game, utility or whatever) and not the source code.

Normally, PD programmers include the source code of their programs in the public domain so that other budding programmers learning the ropes can look at how the program was written and learn how particular things are achieved.

Others however prefer to keep their programming secrets to themselves and do not include the source code for others to look at and decide to just release the program itself into the public domain. This is when you will see "Binary Only" written in the catalogue.

Hope that clears up the confusion.

Floppy Disks - Hard Errors

A few readers wrote in a while back with questions like, what's a floppy disk and how does it work? Why do some of my disks come up with Hard Errors and how can I fix them.

If you were one of the people that wrote in with questions of this nature, then read on.

What's a Floppy disk?

Imagine a computer diskette as just like a record that you would play on your phonograph or stereo. If you pulled a floppy apart, you would see that the inside of it actually looks very similar to a normal record or CD, except for the fact that it's much smaller and thinner. Floppy disks work in much the same

way as a record does. The main difference between the two is that floppy disks can contain a lot more info than a record can and can be written to by our Amiga.

Information is stored in the grooves visible on the floppy disk surface and the Amiga disk drive heads read and write information to those grooves (or tracks) via special heads that were designed for that purpose.

So much for what they are and how they work. But what of the errors?

What's a Hard Error?

Ok, let's look back to our phonograph records to try and explain this one.

We'll assume for argument's sake that we have a great single by the famous Frank Sinatra and it has a scratch on it because we disliked the song so much that we kicked the stereo while the song was playing.

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Now that scratch is the equivalent to a Hard Error on a computer diskette. The record will play fine until it gets to the scratch, but will then play the same track over and over again until you give the stereo another bump to bounce the needle over the damaged track.

The same thing can happen to a computer diskette, though not in the same way. You can scratch or corrupt a floppy by pressing the disk drive eject button while the disk is being accessed. Not a good practice that can also cause damage to your disk drive as well as the floppy. The result would likely be a damaged floppy disk making it unwritable and unreadable in that particular part of the disk. The Amiga would then read the disk until it came to that error, try to read the damaged track and once determined that it can't, would report to you via a requester that the disk has a Hard Error on it.

So how can we fix it?

Unfortunately you can't. You could use *DiskDoctor* to recover as much information from the disk as possible, but a Hard Error on a floppy usually results in having to throw the disk away. You cannot use the Amiga Dos Format command to save the disk as Format will fail as soon as it gets to the damaged sector of the disk. However, due to the ingenuity of a program written by Nic Wilson, we now have the ability to still save that disk from the trashcan. The program I speak of is NOERRORS.

NOERRORS is a formatting program that doesn't actually repair the disk as such, because the errors remain on the disk. What it does do is format the disk in such a way that AmigaDOS is fooled into thinking that those tracks do not exist any more. In this way, the disk becomes usable to the Amiga again.

This is a boon to those of us that have

quite a few disks that have hard errors on them as we no longer need to throw them out. At today's prices, who can afford to?

The repaired disk has a bit less storage space on it, but hey, what's better? A little less storage or none at all?

NoErrors is a commercial program and to my knowledge, no demo version of the program exists. However it's easy to obtain and not all that expensive when you think about the money you'll save on not throwing out your corrupted floppy disks. Get your legal copy of *NoErrors* from the author Nic Wilson direct at: Nic Wilson Software, 138d South Street, Toowoomba Qld 4350, Ph: (076) 358-384 business hours and FAX (076) 358-539 after hours.

That's it for another month of delving among the answers to mysteries held in the nooks and crannies of Andy's Attic. Look forward to more of the same next issue. Till then ...

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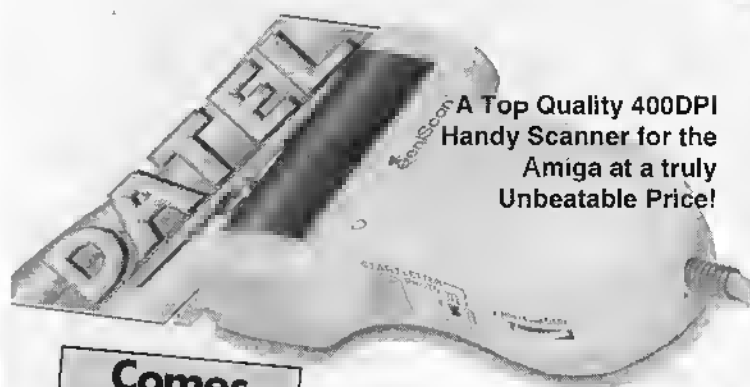
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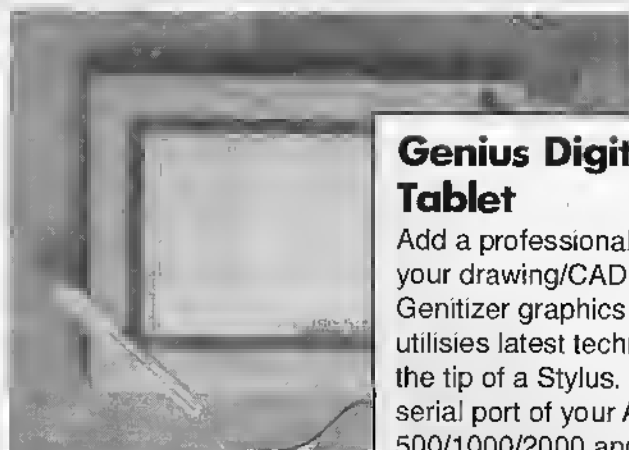
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Letters TO THE EDITOR

More AMOS please!

I must admit that I was surprised to see that someone was willing after all these years to begin doing a regular article in an Australian magazine on AmigaBASIC. I would have thought that any BASIC other than AmigaBASIC would be more relevant.

I know and understand the argument that AmigaBASIC is packaged with most of the Amiga series and therefore most Amiga owners would with little help be able to type in code as listed in a magazine, as I myself use to do many years ago on my C64 (the old grey ghost of my past).

But please, please believe me Amiga BASIC is an ancient and seriously disabled language, not worthy of such a fine machine as the Amiga. If there was ever to be any hope for Amiga BASIC then there would have been constant revisions over the life of the product to improve its shortcomings. Amiga BASICs' life is over, let it rest in peace. Drag yourself forward into the nineties and look closely at the most advanced BASIC type language available today, AMOS is the language that this magazine should be encouraging its readers to learn.

The cost of AMOS is not that much more than many games that are on the market today and now with the release of the compiler, which I might add is a totally optional accessory, it has become the premiere entry level language for the Amiga.

Please do not allow the novice Amiga users to become disheartened and disillusioned with their machines, as they can only become using AmigaBASIC. AMOS is a living and expanding language, a modern language that pushes

the Amiga to the limits of its designed capabilities and allows the programmer, either advanced or raw beginner, to simply and easily write the programs of his or her dreams in an environment that is both powerful and user friendly. I will not pretend that AMOS is the be all and end all of entry level languages. But show me a better one.

I live isolated from the rest of the Amiga community and magazines such as yours (of which I am a subscriber) and my trusty modem are my only links with that community. Take the initiative away from the British publications and introduce an AMOS series, as you have for many years for the C64 community.

T. M. Nichols,
Pannawouica WA

Ed: Yes, you're right. AmigaBASIC ain't worth investing too much time into. However, you are also right in our reasons for including the AmigaBASIC column. It's available, affordable and everyone has it! Hopefully, by getting people started on AmigaBASIC we can encourage them to look at spending the extra money and moving onto AMOS or CanDo perhaps.

Check out our regular AMOS column in this issue.

Amiga 3000 or 2000?

Congratulations on a fantastic magazine. I would appreciate your opinion on the following. Is the Amiga 3000 a dead duck? For more than a year I have been saving to buy what I thought was the ultimate graphics machine, but now with the arrival of 68040's for the 2000 it would seem the A3000 would be a waste of money. Check the following:

A3000 - Base Machine \$4000-4500, 040 Accelerator (no expansion) \$2800. Total price \$7000.

A2000 - Base Machine \$1000, ECS and V2.0 \$400 (to be installed with 2Mb), A2320 (Flicker Fixer) \$400, 040 Accelerator (up to 32Mb RAM) \$3000, Hard Card \$1000 (up to 170Mb and 8Mb RAM). Total price \$5800.

As you can see it seems that the A2000 is cheaper, more powerful and expandable of the two!

What more does the A3000 offer for my money?

J. Pounds

Ed: I think your figures are a bit out. Try these.

A3000 - Base Machine \$3800, 040 Accelerator \$2800. Total price \$6600.

The reason the 040 board on the A3000 has no expansion is that it doesn't need it - the A3000's architecture is 32 bit, so the existing memory expansion potential can be used which is more than you'll ever need - a total of 18.

Furthermore, the A3000's SCSI interface is very fast and you can easily add a second SCSI drive, or replace the existing unit with any other size SCSI drive you can fit in the machine - the limits are the same as the A2000.

Remember too that the A3000 has a 32 bit data path to the custom chips, which means they're several times faster than the A2000. The A3000 is also a lot smarter looking, better designed machine than the A2000. The power switch is located at the front of the machine and the controller ports (joystick, mouse etc) are flush mounted on the side instead of the silly recessed arrangement on the A2000.

So let's see how the A2000 compares.

A2000 - Base Machine with Hard Drive - \$1500, ECS & V2.0 \$450, A2320 \$400, 040 Accelerator \$3200, Chip RAM Accelerator \$550. Total Price \$6100.

It may sound cheaper, but in fact you have a machine which is slower, bigger, not nearly as smart and for my money I would pay the difference and enjoy the A3000.

Kill the C64?

Up until recently I was a very big fan of your magazine. I have been collecting ACAR since the days both the C64 and Amiga were covered equally.

However, since ACAR took up praising the Amiga, hating IBM-type PC's and proclaiming the soon-to-come death of the C64, I have only been buying ACAR for Owen James C64 column. Good as his column might be, I think it is ridiculous to purchase an entire magazine for one column.

I do like Amigas, but don't think that

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they are the best home computer ever made. A PC can easily match, if not better, the Amiga in sound and graphics with the appropriate add-ons.

As for the death-of-the-C64 claims, all they do is make your magazine sound a like a continuous upgrade to Amiga advertisement. If you are going to dedicate yourself to one computer, do it properly and kill everything left of the C64.

Chris Nilsson
QLD

Ed: I'm glad to hear you're still buying the magazine, even if it is just for one column. We stand tall as one of the last remaining Commodore magazines to provide any support for the C64. Just as the Vic 20 eventually faded from popularity, so too the C64 will one day disappear from the pages of this publication. Such words are not self-fulfilling prophecy, but a mere statement of fact.

Industry support for the C64 is diminishing, Amigas are becoming more affordable and more and more people are upgrading.

Just take a look at the number of advertisements mentioning C64 products to get a clear picture of where things are headed.

It would be unfair to our readers to promote a machine which, despite having enjoyed a long and fruitful life, is fast nearing the time when it will no longer represent value for money.

On the subject of PCs comparisons, I think enough has been said in my editorials over past months to make it perfectly clear that we recognise the PC is serious competition for the Amiga. However, as I have stated many times, you can't beat the Amiga when it comes to buying a machine that not only performs useful tasks but also offers many enjoyable things to tinker with.

The C64 and Geos column will continue until such time that the many letters Owen James receives dry up for good.

Which Workbench?

I have had my A500 for two years now. One thing which I haven't worked out is the difference between V1.2, which

is what I have, and V1.3 of Workbench.

What is the Amiga PC 500? Is this an Amiga 500 that is also compatible with the IBM?

Can I have my A500 put into an A2000 body so I can use all the A2000 hard disks, genlocks etc? If I had an AmigaBasic program, how do I turn it into machine code? Can you recommend a desktop publishing program?

Great magazine, just the right combination between productivity and games.

ED: I love people who cram lots of questions into one letter. I think we should have a competition to see what is the most questions you can fit on a single spaced A4 page.

Well, here goes. The main difference between 1.2 and 1.3 is the addition of the Fast File System and Autobooting - both only important if you have a hard drive. However, there are numerous other small improvements which you will only notice if you use the CLI. Some public domain programs need 1.3 for the improved Console Handler - part of the operating system which controls input and output of text to a text window.

I would recommend you wait and get Workbench 2.0 - it offers a slicker interface, faster floppy drive speed, a far improved manual and more graphics modes if you have the Enhanced Chip Set. Expect to pay around \$149.

The Amiga PC 500 is a plain old Amiga 500 with a confusing name. Putting your A500 in an A2000 case wouldn't achieve anything - you would still be missing all the necessary expansion slots on the A2000's motherboard. You're better off to sell your A500 and buy an A2000.

AmigaBasic won't just turn into machine code - however you can compile it - which sends it on the way. BASIC is an interpreted language. Each instruction must be read and interpreted into a series of instructions the main processor in your Amiga can execute. By compiling the BASIC program, the code is interpreted and optimised as best possible - creating a rather slimy machine code program. The result is much faster

than BASIC alone, but still not comparable with programs written in the CPU's native tongue to start with.

For desktop publishing, as a beginner, I would recommend PageSetter III. You'll find a hard drive would be a worthwhile addition if you plan on doing much serious work with your machine.

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PD Update

by Glenn Bussell

Welcome to the latest edition of P.D update. This month we will be taking a quick look at some of the best demos available at the moment.

Eric's Latest

First cab off the rank is the *Stealthy II* animation by the famous Eric Schwartz. This animation features a stealth fighter (surprise surprise) bamboozling a poor Russian Mig. The

animation is in the cartoon style and is bound to provide a couple of laughs, on the down side though the animation is fairly short and requires 1 megabyte of memory to run.

Also out now by Eric Schwartz is the incredible *Anti-Lemmings* demo, featuring the poor Lemmings in, amongst other things, a do or die battle with the stealth fighter from the *Stealthy II* animation. This is really one of the most incredible demos I've yet seen. There must be a catch, I hear you say, and there is and it's quite a large catch. For a demo of such length to include the almost television quality animation it features, an equally incredible 2 meg of memory is required to run it.

Mj
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Simpsons Demo

Simpsons

On the subject of television animations Bart Simpson has hit the Amiga in a big way - there are a number of demos out now featuring the Simpsons. If you feel an overwhelming desire to possess one of these demos the one to go for is the *Simpsons Demo* by Decay. The Decay version of the Simpsons features the obligatory Do the Bartman sample and some really good animations of Bart and the rest of the Simpsons.

One warning though to parents who are thinking of using this demo to entertain the kids, unfortunately someone could not resist the urge of putting an expletive in the message that accompanies it.

Pink Floyd

From the humorous to the sombre. Some of you may have noticed a *Pink Floyd* demo available that takes up a mammoth six disks. This demo features something I've rarely if ever seen in an Amiga demo atmosphere. Based on the Pink Floyd album/movie 'The Wall', this really is more like a movie than a traditional Amiga demo. The six disks are put to good use with the entire demo running for in excess of an hour!

The coding is nothing incredible but the overall sense of atmosphere it portrays makes this one of the most memorable I've ever seen.

You need one meg of memory and two disk drives to run the demo. Even if you get your Public Domain disks for three dollars a disk, this demo will set you back as much as an album! Still, if you're an Amiga owner and a Pink Floyd fan I think I'd be tempted to take the risk and buy it.

Music

On the subject of music, with the release of the new Dire Straits album I became interested enough to search out a demo of Money for Nothing from their previous album Brothers in

Arms. This demo is fairly straightforward with a digitised picture of the Brothers in Arms album cover and a long sample taken from Money for Nothing.

Similar demos to this are available featuring Billy Joel's We Didn't Start the Fire and the theme from the Adams Family (1Mb).

Red Sector

Last but certainly not least is the *Red Sector Demo Maker*; this name may ring a bell with some of you as the name of a product that Pactronics are distributing with a price tag of somewhere around \$80. It is indeed the same program and it seems to have no disabled features, the save certainly works and some incredible results can be achieved.

All this leaves me a little mystified as to the legalities of the whole thing, after all some companies are selling this program for as much as eighty dollars and any Australian company that is distributing 17 Bit PD software is selling it copyright free for the cost of a disk plus duplication fees.

The only major drawback of the PD version of the program is that there is no documentation whatsoever accompanying the program this means that getting started can be pretty tough going but the end results make the initial struggle well worthwhile. (NOTE: According to Pactronics, the program is NOT public domain - libraries carrying the program should remove the demo maker from their collection - Ed.)

If any of the disks mentioned in this article have caught your eye you may be wondering how you can get your hands on the software. Most of the software covered in this article is from the 17 Bit Public Domain library - a British Public Domain company that specialises in Demos. These disks are available from a number of distributors in Australia with prices ranging from three to five dollars.

As this software is copyright free you are also welcome to acquire it from a friend, bulletin boards or check with your local user group.

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AMOS Column - Part 3

Gadgets and Sliders

by Wayne Johnson

When creating any type of utility or application, the appearance of gadgets and icons can add a lot more feel to a program and make it more comfortable to use. Most paint programs are a good example of this. Icons and sliders representing tools can either be a joy to use or they can be just plain clumsy. A good method for icons or sliders is to have them highlight when clicked on.

This first program is a slider routine. By clicking on the slider, it changes colour to indicate that the click is active on the gadget. By moving the mouse, the gadget moves to the current mouse position inside the boundaries.

Please note that any indented lines are continued straight on from the previous.

Simple Slider Gadget Routine

Curs Off : Flash Off : Cls 0

Double Buffer : Gr Writing 0 : Rem SET UP THE SCREEN AND

Ink 3 : Bar 60,50 To 260,100 : Rem DRAW A BOX AREA FOR THE

Ink 0 : Bar 70,70 To 250,80 : Rem SLIDER.

Ink 4 : Bar 0,0 To 8,8 : Rem DRAW A SLIDER GADGET.

Erase 1 : Rem CLEAR THE SPRITE BANK.

Get Bob 1,0,0 To 9,9 : Rem TAKE GREEN GADGET AS BOB 1.

Ink 5 : Bar 0,0 To 8,8

Get Bob 2,0,0 To 9,9 : Rem AND RED AS BOB 2.

Bob 0,71,71,1 : Rem PLACE BOB IN OUR SCREEN.

Do

If X Screen(X Mouse)>X Bob(0) and X Screen(X Mouse)<X

Bob(0)+9 and Mouse Key=1 Then Bob 0,,,2 : Gosub SELECT

Loop

Rem CHECK IS MOUSE IS ON TOP OF GADGET AND THE LEFT
MOUSE HAS BEEN CLICKED.

SELECT:

If Mouse Key=0 Then Bob 0,,,1 : Ink 0 : Bar 0,0 To 180,20

:VLU=V Bob(0)-71 : Ink 7 : Text 10,10,"Value of slider:

" + Str\$(VLU) : Wait Vbl : Return : Rem MOUSE WAS NOT HELD
IN OR WAS RELEASED

If X Bob(0)>=71 and X Bob(0)<=241 Then Bob 0,X Screen(X
Mouse),,2

If X Bob(0)<71 Then Bob 0,71,,2 : Goto SELECT

If X Bob(0)>241 Then Bob 0,241,,2 : Goto SELECT

Rem ONLY ALLOW TO MOVE INSIDE THE BORDERS OTHERWISE
RETURN.

Goto SELECT

In our last section of this routine, LIMIT BOB could have been used. However, in this particular case, we would still need to check for locations to retrieve values. Next up is a routine for highlighting an icon when it is clicked. The method here is to use SCREEN COPY to reverse our Icon image. Check your manual and you will find that SCREEN COPY has one last optional parameter available. This is called MODE. By placing a %0011000 in the MODE parameter, the blitter will reverse anything it grabs and paste it in its altered state. Let's take a look at the routine:

Flash Off : Cls 0

Ink 3 : Bar 50,50 To 81,70

Gr Writing 0 Ink 6 : Text 50,62,"Test"

Reserve Zone 1 : Set Zone 1,50,50 To 81,70

Rem PAINT AN ICON, NAME IT, AND PLACE A ZONE AROUND IT.

Do

If Mouse Zone<>0 and Mouse Key=1 Then Gosub SELECT

If Mouse Key=2 Then END

Rem IF IT HAS ENTERED THE ZONE AND THE LEFT MOUSE IS
CLICKED, JUMP TO SUBROUTINE 'SELECT'.

Loop

SELECT:

Screen Copy 0,50,50,82,71 To 0,50,50,%110000

Repeat

Until Mouse Key=0 or Mouse Key=2

Rem REVERSE THE ICON WITH SCREEN COPY AND WAIT FOR
THE LEFT MOUSE TO BE RELEASED.

Screen Copy 0,50,50,82,71 To 0,50,50,%110000

Rem REVERSE AGAIN TO RESTORE THE ORIGINAL ICON TO
NORMAL.

Return

The binary figure %00110000 used in MODE is called a minterm. Experimenting with these minterms can produce some unusual effects. But this routine is just a simple way of

making tools more interesting to use. Notice in programs like Soundtracker, the tools remain as just static parts of the screen, whereas the program Startrekker 1.2 highlights its tools when selected.

News

The current version of AMOS is still 1.32 however the compiler is now up to version 1.12. Many bugs have finally been eradicated; the main one being the inability to compile AMAL banks.

Hints and Tips

A problem I always had up until three months ago was that I had never been able to place more than four sprites on the same line. Now, we know that the Amiga can produce four fifteen colour sprites on a line, but I had always made sure that I painted in colour registers 16

and above and only used three colours for each. Unfortunately, this is not quite enough.

When your images are designed and cleaned up in the Sprite Editor, you must reduce the palette size to LOWRES four before you save out your images. The palette will remain untouched, but the number of bitplanes will be reduced to two which is necessary in four colour sprites. The method I use is with SPRITE X rather than the Sprite Editor. Club members can order this from the Australian AMOS Club. Non-members can get it from other PD sources. The first step is design a your sprites in a paint program or with SPRITE X in 32 colour mode.

For sprites 0 and 1, use register 16 as black and 17, 18 and 19 for the painting colours. For sprites 2 and 3, use registers 20, 21, 22 and 23... and so on. Load the IFF image into SPRITE X and enter the sprite grabber mode. Grab your 3-colour sprites and return to sprite edit mode. Click on the SPRITE/BOB icon and reduce the bitplanes by clicking on the REZ icon and the LOWRES 4 icon. Save out your sprites and you will find that you will be able to produce 8 sprites on the same line.

Using 3D Extension

When using programs that need the VooDoo 3D extension, make sure the current directory is set outside the AMOS_SYSTEM directory. Also make sure that the correct path is set for loading the 3D objects otherwise you will get an object not found error.

Remember to always set your 3D screen height to 256 otherwise it defaults to 200 line NTSC.

More Speed

If possible, use the TD CLS command rather than CLS 0 because it's faster.

SCREEN COPY is faster than TD BACKGROUND. When using an iff picture in your 3D-frames, it is better to SCREEN COPY them onto your screen and then draw your 3D objects. You can

also paste other screen parts like Icons and BOBs after you have drawn your 3D objects to give the effect of an object passing in front of a background and passing underneath other screen parts.

Avoid using PRINT in any 3D screen as it slows down your action quite drastically.

When designing your objects in 3D, try to use the smallest amount of shapes possible, using only surface detail where you can. This will greatly speed up the amount of frames per second.

Ten Liners

This month's Ten Liner doesn't contain a great deal of game plan, however it contains smooth screen scrolling and chasing aliens. Move left and right to guide your ship and up to combat gravity.

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(1)

Erase 1 : Load "extras:sprite_600/aliens/
alien7.abk" : Load "extras:sprite_600/aliens/
alien6.abk", 1 : Make Mask : Dim C\$(4)

(2)

GAME: Screen Open 0,640,256,8,Lowres :
Screen Display 0,130,40,320,256 : Curs Off :
Cis 0 : Flash Off : Get Sprite Palette : For A=1
To 640 : Ink Rnd(7)+1 : Draw A,0 To
A,Rnd(50)+1 : Draw A,256 To A,256-Rnd(50)+1
: Next A : Double Buffer

(3)

AS="A: I J1=0 J A; I J1=1 J A; I J1&4=0 J B; I
J1&8=0 J C; P; J A; B; I X>319 J A; L X=X+3;
P; J A; C: I X<1 J A; L X=X-3; P; J A; " : B\$="A
0,(1,5)(2,5)(3,5)(4,5); A: F R0=1 T 1; I J1&1<0
J B; L X=XS(0,280); Next R0; " : Make Mask :
Hide

(4)

B\$=B\$+L Y=Y+1; P; J A; B: L Y=Y-1; L
X=XS(0,280); P; J A; " : Bob 0,X Screen(260),Y
Screen(170),1 : Channel 0 To Screen Offset 0 :
Amal 0,A\$: Channel 1 To Bob 0 : Amal 1,B\$

(5)

C\$(1)="A 0,(12,5)(13,4)(14,5); A: L X=320; L
Y=50; M RA-X,RB-Y,60; F R0=1 T 10; N R0; P;
J A; " : C\$(2)="A 0,(12,5)(13,4)(14,5); A: L
X=320; L Y=206; M RA-X,RB-Y,90; F R0=1 T
10; N R0; P; J A; " : C\$(3)="A
0,(12,5)(13,4)(14,5); A: L X=0; "

(6)

C\$(3)=C\$(3)+L Y=128; M RA-X,RB-Y,70; F
R0=1 T 10; N R0; P; J A; " : C\$(4)="A
0,(12,5)(13,4)(14,5); A: L X=640; L Y=128; M
RA-X,RB-Y,80; F R0=1 T 10; N R0; P; J A; "

(7)

For A=1 To 4 : Bob A,0,0,12 : Channel A+1 To
Bob A : Amal A+1,C\$(A) : Next A

(8)

Amal On 0 : Amal On 1 : For A=2 To 6 : Amal
On A : Wait 10 : Next A

(9)

Do : Amreg(0)=X Bob(0) : Amreg(1)=Y Bob(0) :
If Bob Col(0)=-1 Then Amal Off : Fade 4 : Wait
Key : Goto GAME

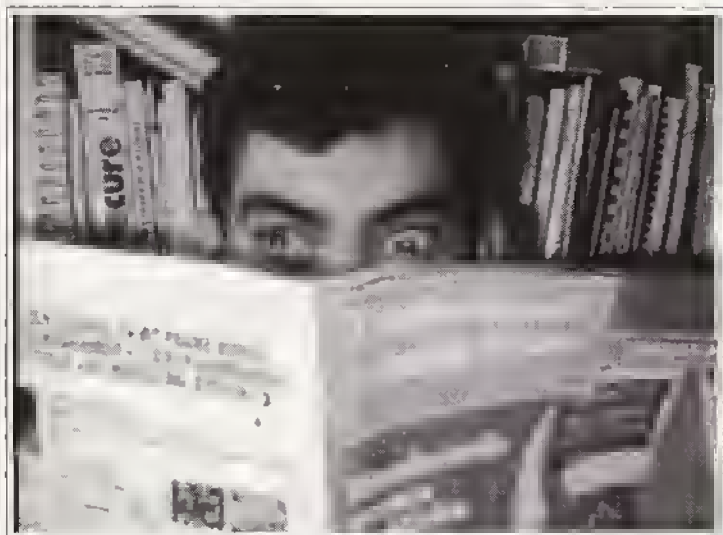
(10) Loop

Just a quick thank you to Siggie Hewett
of Telopia for his hints & tips with 3D.

More next month. If you would like
to contribute any tips or have your AMOS
questions answered, just write!

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AmigaBasic Graduation Part 4

Random Disk Files Part II

by Peter Deane

We left you last month with a random file sitting on disk called "Address.ran". This article will show you how to now access the data locked away in this file, make use of it, and change it!

GET-ting it out

The command that allows you to retrieve data from random files is called GET.

This has the syntax:

```
GET #<Channel>,<Recordnumber>
```

Note that <Recordnumber> is optional, and if you don't specify it BASIC will give the next record after the record it last read. If you have read zero records from the file it will give the first. If you have just read record number 23, it will give you 24.

First, open the file for random access in exactly the same way it was opened for writing. In fact, due to the nature of random files, you can actually be reading from and writing to the file with only the one OPEN command.

Following the OPEN command you then have to add a FIELD statement. Last month covered these two points extensively, so I won't repeat much here, except to say that the field command may have different string names, just that the number and size of the fields must correspond.

```
You could go something like:
OPEN "R",#3,"D:\Test\Fred",128
FIELD #3,100 as test1$, 28 as test2$
test1$="Hello"
test2$="There"
PUT #3,1
CLOSE #3
```

```
OPEN "R",#3,"D:\Test\Fred",128
FIELD #3,100 as foo8$, 28 as foo9$
GET #3,1
PRINT foo8$
PRINT foo9$
CLOSE #3
```

for instance. BASIC doesn't care what NAMES you assign to the strings, just that the same type of fielding must be employed on the way out as on the way in, otherwise you'll get garbage results. The main thing to check is that the field sizes correspond.

How many records?

It is often very useful to figure out how many records we have stored in the random file. This is necessary to avoid a GET beyond the end of the file. If your database only has 24 records stored and you try to GET record number 25, then things will not work as you expect!

Fortunately, it's a very simple procedure. Since you already know the size of each record, you can calculate the number of records available by opening the random file in normal serial style, getting the LOF value (number of bytes in the file) and dividing it by the record size. The next example will show how.

Modifying fields

Because when you open a file in random mode the system allows you to both read from and write to it, it's a VERY easy process to grab a record, have a look at it, modify it and resave it, all in the matter of a few lines. Let's say we have a very simple data file with two fields stored: an object description and price. Owing to lower interest rates we are going to reduce the price of our stock by 15% across the board. A simple program may look like:

```
OPEN "I",#3,"D:\Data\StockList",4096
length%=LOF(#3)
CLOSE #3
records%=length%/32

OPEN "R",#3,"D:\Data\StockList",32
FIELD #3,28 as desc$,4 as price$
```

```
FOR k%=1 TO records%
  GET #3,k%
  outprice$=price$
  price%=VAL(outprice$)
  price%=price%*0.85
  LSET price$=STR$(price%)
  PUT #3,k%
NEXT k%

CLOSE #3
```

From that you see the benefit of the RANDOM access at work. Note that we didn't have to alter anything with the description. It was read out of the file, but not touched when we modified the other field. This is how it all works.

Notice how I took the string price\$ into another variable called outprice\$. The reason for this is how BASIC disassociates a fielded variable from a program variable if you modify it at all. I am grabbing the numeric value of price% from the string outprice\$. If I'd tried going price%=VAL(price\$) I would have had problems.

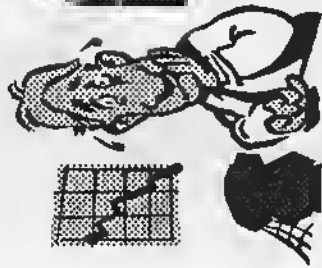
Also the above version is extremely simplistic, because our price is only 4 characters long, and an integer. In real life you are probably looking at a decimal value for this, where only 2 places are significant!

The program does need a few safety catches. What, for instance if the file had not existed on disk? You need to warn your users of such cases, and this can be done by trapping the error with an ON ERROR GOSUB command. I'll leave error checking for now, because it's got a whole article devoted to it the month after next. Suffice to say while you are in the error subroutine you can let your users know of the problem, and then if the error isn't major you can RESUME back to a certain part of the program.

Maybe you could give them another chance to enter the file name, or press on without reference to the file, and so on. It gets very involved when you start thinking of all the things a user can do 'wrong'.

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file. We'll include options to view the entries and edit them if need be. Here's where you'll see the power of random access files at work.

Also notice how I'm using subroutines of code that appeared last month. This method is extremely useful. I now don't have to write completely new code to open the file and field it: I simply cut and paste from the older programs, saving heaps of time. Naturally it pays to read what you are pasting in, because while the process is the same, small things such as the names of a few variables may change.

I think I'll add error checking to this one. Let's only check for one error though: file not found (error number 53 - so common, I can still remember the error number).

If there's a problem finding the file, the program will ask the user if he first wants to create one. This is for those readers who don't have the random file we created last month. (Either you missed the issue, or lost your files). See how it cleverly resumes back to the main menu, enabling you to then carry on as normal.

There's one thing I'll add about error checking. Comment the line out when you are typing the program in. If you include error checking, it will error trap your typos! It's more convenient to let the error occur and see which line it was.

Refer now to the program listing, or read on.

Reader Questions

Less Emphatic Matching

Ben Werbowyj of Rankin Park, NSW was working on a simple number guessing game which did a bit of interaction with the user, such as asking them whether to try again or not. He writes:

"I've gotten the program working pretty well, but I can't get it to accept both 'y' and 'Y' and the same for 'n' and 'N'. By this I mean the difference is the capitals."

Well, Ben, that's really easy. There are two ways out of this:

```
a$=""
WHILE a$ <> "Y" AND a$ <> "y" AND a$ <> "N"
AND a$ <> "n" a$=INKEY$
WEND
```

That tests for all possible incidences of how the user can press Y or N. However you may prefer to use another command, the UCASE\$() construction, which simply takes a string and converts it all to uppercase. This is just the ticket for making string comparisons less stringent. There are two ways around this:

```
a$=UCASE$(INKEY$)
WHILE a$ <> "Y" AND a$ <> "N"
a$=UCASE$(INKEY$)
WEND
```

alternatively:

```
a$=""
WHILE UCASE$(a$) <> "Y" AND
UCASE$(a$) <> "N"
a$=INKEY$
WEND
```

The first example here will run a little faster than the second because the WHILE statement is testing two pre-existing strings, and not having to do a little bit of work before the comparison is made. In all, it would be hard to pick between the two methods, however, so use whatever you feel like.

Cartesian co-ordinates

Jim Manning of Sussex Inlet, NSW wrote to say:

"What beats me is all that mathematical jargon, I just don't understand how they work it all out, particularly in respect to graphics."

There isn't all that much math involved in BASIC, Jim. Most of the time all you are doing is incrementing a counter, and perhaps a few simple functions like multiplying the counter by a constant and comparing the result with something else.

However for graphics one has to be familiar with cartesian co-ordinates, that is, the location of points in an X-Y plane. (Or with 3D graphics, in an X-Y-Z plane). To animate a ball flying through the air one has to be able to calculate its parabolic path at certain instances in time, calling for a bit of Newton's laws, and the formula for a parabola. The program then uses the time variable to calculate snapshots of the path and prints up the ball at various locations from a formula worked out.

You could include a look-up table in the code to find out where the ball would

be every tenth of a second and then print it up in that spot, but it's far easier to calculate the locations on the fly from the formula.

So if you want to code graphics, then a bit of elementary Descartes is necessary. Try to find an old year 9 or 10 mathematics textbook lying around, and check out the relevant sections.

File Not Found

A few users mentioned they couldn't get the file access to work in the example programs. Every time they tried to access the file called addfile\$, they'd get an error.

One user even specified that he had to put inverted commas around addfile\$ to get the program working, resulting in a file called "addfile\$" on his disk! Putting inverted commas around a string variable will make basic think it's a string constant instead. Strings can be any ascii characters (example a file name).

I think you've all missed the point of these two lines:

```
'Change as necessary
Path$="D:\BASIC\Work"
```

The CHANGE AS NECESSARY bit was something I didn't spend much time on. I thought you'd be able to figure out that you needed to change it to the directory where you store your BASIC files. Unfortunately, one reader sent me a disk with his program. The line read: Path\$="D:\BASIC\Work"

yet, nowhere on the disk was a directory called 'BASIC' which had a directory called 'Work' in it. The program didn't have a chance!

Please ensure that what you specify as the path\$ is an EXISTING directory somewhere on your disks. It's going to be different for everyone, so what I do is simply make it the first line of the program, and then 'calculate' the names of files by adding this at the start.

```
So if you were trying to open 'Fred.dat'
and you had your path$ set to be
'DF0:\AmigaBasic\Progs\' then we could
simply go:
thefile$=path$+"Fred.dat"
PRINT thefile$
```

and the result would be
DF0:\AmigaBasic\Progs\Fred.dat

Get the idea now? I was initially worried about the code itself, and checked for errors like crazy. But it was a simple case of me assuming too much on the part of the programmer. If you see a comment that says 'change as necessary', then I'm leaving it up to you to work out what's required.

I will never 'spoon-feed' you in these articles, that would defeat their purpose. If you are going to program, then you not only have to learn about the language you are programming in, but also about the operating system of the machine you are programming on. I'd suggest you keep up with Andrew Leniart's CLI Tutorials for more info about DOS.

Also, just keep an eye on me. I'm not an AmigaBASIC programmer, I'm a GFA-BASIC programmer. There are subtle differences. One I can immediately think of is the 'END IF' command, which in GFA is one word 'ENDIF'. If you should see an 'ENDIF' slip into some of my examples here, then make the conversion for me, okay? I try hard to avoid things like this, but I've typed 'ENDIF' a lot more times than I've ever typed 'END IF'!

It should be noted that all programs are compiled, run and tested before they are submitted for publication, however, so it's more likely to be a typo somewhere rather than an error in my code.

Next Month

AmigaBASIC allows you to access the peripherals attached to your Amiga in exactly the same way as opening disk based files. So next month we'll be seeing how to talk to the printer, modem, and other peripherals (including CLI and SHELL windows). We'll develop a simple program for printing out program docs so that page breaks are taken at the right places.

As usual, you can write to me at:

Peter Deane PO Box 13 WARATAH NSW 2298.

By the way, if you want a personal reply, then please enclose a stamp. If you send me a disk, then please enclose 90c worth of stamps if you want it back. If you have a modem, you can call my BBS (Inquestor) on (049) 67-6808, or if

you login to a Fido BBS near you, you can now netmail me on 3:622/491.

Also I keep up with the Fido echo AUST_AMIGA, where general queries can be posted and you'll also see a number of other ACAR contributors lurking about. Even Andrew (when they let him)!

```
' Program: AddressBook.4
' Author : Peter Deane
' Version: 1.0
' Date : 9 Dec 91
```

' Change as necessary

Path\$="DH0:BASICWork"

' set error trap

' NOT YET! Do it when the code is working, not
' while typing this in.

ON ERROR GOTO woopseydalsey

' We keep control of the record number by the global
' index 'record%'. This always tells the program what
' it's up to. Always pay special attention to how
' record% is managed.

record%=0

main:

CLS

PRINT 'Main Menu'

PRINT

PRINT '<A>dd to database'

PRINT 'rowse database'

PRINT

PRINT '<Q>uit'

PRINT

PRINT TIMES: ' Choose your weapon: '

INPUT choice\$

choice\$=UCASE\$(choice\$)

IF choice\$=<>'Q' AND choice\$<>'A' AND
choice\$<>'B' THEN

GOTO main

END IF

IF choice\$='Q' THEN

END

END IF

IF choice\$='A' THEN

GOSUB howmany

record%=num.records%+1

GOSUB askforrec

GOSUB addfile.prep
GOSUB drop.out
GOSUB addfile.shul

END IF

IF choice\$='B' THEN
GOSUB howmany

IF num.records%<1 THEN
PRINT
PRINT 'There are no records in the file'
PRINT
INPUT 'Press Return ' ;xx\$
GOTO main

END IF

record%=1

WHILE record%<=num.records%
GOSUB addfile.prep
GOSUB pick.in
GOSUB show.rec
GOSUB addfile.shut
PRINT
PRINT 'Enter: number to change'
PRINT ' 'N' for next'
PRINT ' 'Q' to quit
INPUT ' ' ;opt\$
opt\$=UCASE\$(opt\$)
opt%=VAL(opt\$)

IF opt\$='Q' THEN
record%=num.records%+500

END IF

IF opt\$='N' THEN
record%=record%+1 END IF

IF opt%>0 AND opt%<8 THEN
IF opt%=1 THEN

PRINT 'Name : ' ;

LINE INPUT nam\$

ELSEIF opt%=2 THEN

PRINT 'Street Address: ' ;

LINE INPUT address\$

ELSEIF opt%=3 THEN

PRINT 'Suburb : ' ;

LINE INPUT town\$

ELSEIF opt%=4 THEN

PRINT 'State : ' ;

LINE INPUT state\$

ELSEIF opt%=5 THEN

PRINT 'PostCode : ' ;

LINE INPUT postcode\$

ELSEIF opt%=6 THEN

PRINT 'Area Code : ' ;

LINE INPUT std\$

ELSEIF opt%=7 THEN

PRINT 'Phone Number : ' ;

LINE INPUT phone\$

END IF

GOSUB addfile.prep
GOSUB drop.out
GOSUB addfile.shul

END IF

WEND

END IF

GOTO main

asklor.rec:

PRINT

PRINT "Record # ";record%

PRINT

PRINT "Name :";

LINE INPUT nam\$

PRINT "Street Address :";

LINE INPUT address\$

PRINT "Suburb :";

LINE INPUT town\$

PRINT "State :";

LINE INPUT state\$

PRINT "PostCode :";

LINE INPUT postcode\$

PRINT "Area Code :";

LINE INPUT sld\$

PRINT "Phone Number :";

LINE INPUT phone\$

RETURN

show.rec:

PRINT

PRINT "Record # ";record%

PRINT

PRINT "<1> Name :";nam\$

PRINT "<2> Street Address :";address\$

PRINT "<3> Suburb :";town\$

PRINT "<4> State :";state\$

PRINT "<5> PostCode :";postcode\$

PRINT "<6> Area Code :";sld\$

PRINT "<7> Phone Number :";phone\$

RETURN

howmany:

OPEN "I",#99,path\$+"Address.ran",240

length%=LOF(99)

num.records%=length%/128

CLOSE #99

RETURN

addfile.prep:

OPEN "R",#2,path\$+"Address.ran",128

FIELD #2, 24 AS na\$,40 AS ad\$,24 AS tn\$,4 AS

sl\$,6 AS pc\$,4 AS ai\$,8 AS ph\$,18 AS dm\$

RETURN

addfile.shut:

CLOSE #2

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Name _____

Address _____

Telephone _____ Date _____

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RETURN

drop.out:

```
LSET na$=nam$
LSET ad$=address$
LSET tn$=town$
LSET st$=state$
LSET pc$=postcode$
LSET ar$=ar$
LSET ph$=phone$
LSET dm$=
PUT #2, record%
```

RETURN

pick.in:

```
GET #2, record%
nam$=na$
address$=ad$
town$=tn$
state$=st$
postcode$=pc$
sld$=ar$
phone$=ph$
```

RETURN

woopseydaisy:

PRINT

IF ERR=53 THEN

PRINT "Whoops! File not found."

PRINT "We were looking in the ";path\$;

directory."

PRINT

INPUT "Would you like to create one ";will\$

will\$=LEFT\$(UCASE\$(will\$),1)

' or if you like will\$=UCASE\$(LEFT\$(will\$,1))

IF will\$="Y" THEN

record%=1

GOSUB asklor.rec

GOSUB addfile.prep

GOSUB drop.out

GOSUB addfile.shul

RESUME main

END IF

PRINT

ELSE

PRINT "Unknown error."

PRINT "Error number: ";ERR

PRINT

END IF

INPUT "Press Return ";xx\$

END

The Geos Column

Introducing Melbourne radio journalist, Arthur (Artie) Stevens, who takes over the column from Owen James. Artie is known to Melbourne radio listeners as the voice of Melbourne Traffic at Radio Station KZFM.

It's not that you're stepping into the shoes of someone else that's the problem, it's the size and quality of the shoes. I for one see Owen James' shoes as hard ones to fill. Nevertheless, here I am.

Hopefully the GEOS column will continue to go from strength to strength.

In the December edition of ACAR, Owen touched on desktop publishing using *GeoPublish* and for me that's home territory.

In the last three years I've been producing *Radio Raves*, the in-house magazine for KZFM. That's given me the opportunity to experiment with *GeoPublish* at length.

We've printed editions using a MPS-802 printer, MPS-803, and lately using a LaserWriter courtesy of Laurenny Rinalde and LaserMode. Sadly this facility is no longer available.

It's up to you how professional a finish you'd like to your magazine. You're only limited by your imagination and the cost of printing. There are limitations to *GeoPublish* too, but for the price, it's a value-plus way of getting into desktop publishing.

With *GeoPublish* you're dealing with a fairly large program by C64 standards. The 99k file fits on a single 1541 formatted disk, although you're not left with

too much space for your magazine - some 66k in the balance. If you have a second drive available (beg or borrow one), then so much the better.

If you have a RAM expander like GeoRam 512, then *GeoPublish* really flies. If after all that you still only have one drive available, keep in mind all the things you'll need on the disk with *GeoPublish*. Like *Desktop* for example (v1.2 uses 18k, v1.3 takes up 20K and v2.0 uses 30k), like fonts, at least one, maybe two. I use LW-Roma (11k), even when printing on a Dot Matrix it looks better than Roma (8k). You'll need your printer driver (1k) and if you're going to use graphics you'll need the *Photo Manager* (v2.0 10k) however this can be left on a separate workdisk with your graphic "photo albums".

Plan Ahead

Firstly, sit down with a pen and paper and design your magazine. I know that sounds like you're defeating the object of desktop publishing, but it's not. You really need to have some idea of what sort of layout you have in mind before you start.

If that all seems too much like hard work then you could access the master libraries of your *GeoPublish* master disk.

There are three libraries available - 60 dpi, 72 dpi and 80 dpi printers, check your printer manual to find which to use (example MPS-803 used 60 dpi, MPS-802 used 80 dpi).

These libraries can be accessed from within *GeoPublish*, whilst you're in MASTER PAGE mode.

Decide whether your magazine will have both left and right pages (printed both sides), or right hand pages only.

KISS

Your layout must after all be readable, otherwise who's going to read it? So Keep It Simple, Stupid! Try not to crowd the page with information. A lightloading of text, headings and graphics is best - evenly balanced.

On the subject of graphics, do you have access to a graphics library? I use *Newsroom*, *Print Shop* and *PrintMaster* clip art which I've imported over to Geos Photo Albums using Graphics Grabber - available on Deskpack and Deskpack plus. Usually there's a graphic to suit the occasion, if not, there's always *GeoPaint* to modify ones or to create a new one.

Then there's the title of your magazine. It needs to be relevant to the subject matter, or at least convey a message that deals with the theme. My magazine *Radio Raves* is just that, 10 pages of radio news. This magazine's title *Australian Commodore and Amiga Review* says it all too.

Checklist

1. Keep it simple.
2. Develop a distinctive title or mast head.
3. Don't use all desktop publishing features on every page.
4. Choose typefaces with care, do not use too many typestyles. There's nothing worse than a magazine that looks like a ransom note.
5. Balance pages, not too many graphics or headings on a page.
6. Break up large areas of text (grey areas). Pages of solid text can be daunting to many readers.
7. Use two or three columns of text

rather than one: it's easier to "scan down" a narrow column.

Don't proofread the whole thing yourself (particularly if you wrote it all). Get someone else to proofread it. There's nothing more annoying than typo's and misspelled words.

As for putting your *GeoPublish* document together, keep in mind the two modes you'll be using.

Layout and Graphic

Layout is used to import *GeoWrite* documents into your *GeoPublish* magazine. If contributors use other word processors, convert them across to *GeoWrite* with Text Grabber first. All documents should be set to the widest possible margin (*GeoPublish* will adjust them as needed) and work out beforehand whether you'll want your documents to full justification or left only.

Graphics mode is used purely for headlines and comment text. Don't try and assemble a page of text in Graphic Mode. Read your *GeoPublish* manual. Step through each section carefully and practise. If you're not sure about something you've read, try it and see what happens.

There are some minor errors in the manual (certainly the copy I have), but nothing that a little bit of experiment and thought can't fix.

When you've finished and released your magazine, don't forget to send a copy to me at ACAR. We may be able to include a best-of gallery somewhere down the track.

Letters

Just one this month, most people still getting over the summer holidays.

Weisiek Szydlowski of Pymble NSW writes:

"I have been a GEOS fan since v1.0 appeared in 1986. My daughter (13, and I share our 64 using various GEOS applications.

"Recently I purchased the Cockroach Graphics Utility package. This is something for serious GEOS users - especially those with an interest in computer graphics.

"Graphics Utility v2 allows the capture and disk storage of screen graphics. Four types of graphic can be captured.

- bitmapped hires screens - as DOODLE files

- bitmapped multicolour screens - as KOALA files

- non-bitmapped or character screens - SCR files

- sprite graphics - SP files

"Before saving to disk, the frozen screen can be processed, background and foreground colours can be changed. Also saved files can later be converted to Cockroach Compressed Graphics format, which is used to produce a hard copy in grey scale or full colour.

"The File Conversion Utility converts above files to different formats like *GeoPaint*, *Print Shop*, *Doodle*, *CADPAK* etc. The captured screens can then be edited using editors within *Print Shop* and *Newsroom* and the finished graphics can be transferred to GEOS using the Graphics Grabber.

"When I use *GeoPublish* I find it very difficult to handle. I probably need a RAM disk and second disk drive. I am also looking for an Epson or Star printer driver using the GeoPrint cable and multiple strike. Can anyone help me?"

Thanks for the letter Wiesiek. I felt a touch of deja-vu as you mentioned your problems with *GeoPublish* and a single disk drive. It's no fun at all without that second drive or a RAM expander. And as far as editing your graphics within *Newsroom* or *Print Shop*. I can't help thinking you're causing yourself more work than necessary.

The *GeoPaint* edit facility leaves both *Newsroom* and *Print Shop* editors for dead, so transfer your graphic straight across, then work on it.

Back next month with more of *GeoPublish* and soon we'll start to look at *GeoBasic* as an alternative way to program. If you've already written a *GeoBasic* program or application send a copy in.

The GEOS Column c/- ACAR PO Box 288, Gladesville, NSW 2111 (include a stamped self-addressed envelope if you'd like a personal reply).

Until next month, keep on GEO-ing.

The C64 Column

by Owen James

Arcade Game Help-Line

If you're an arcade-styled game fanatic you'll be pleased to know that there's now a help line just for you. Similar to the Adventurer's Realm, hint sheets, tips and cheats are available to those who send a self-addressed envelope. If you'd like to know more, or are in desperate need of some gaming help, write to RED VENOM, PO BOX 362, HORNSBY NSW 2077.

Geos PD

For GEOS users, *geoPD* is now available. It contains around 25 of the best utilities, applications, fonts and printer drivers around. To get your copy, send a cheque or money order (made payable to Owen James) for \$6 to me care of The ACAR. Allow three weeks for delivery.

MAIL

Out of Memory?

First out of the mailbag this month comes Bradley Dowling, who writes:

"Dear Owen, I have been buying ACAR for about a year now, and I look forward to your C64 column every month. I am an amateur programmer and I am always looking for new tips and tricks.

"I have always been curious (and frustrated) at when I load a game from disk and then try and save it to tape, the computer always gives an "OUT OF MEMORY" error. Why does it do this and is there any way of getting around it?

I thought you might be able to trick the computer into thinking it's got more memory available than it really has. Also, if you could give me any other useful tips or tricks I would greatly appreciate it."

The problem could be one of a number of things. Since you are able to at least try to save it, I will presume you are referring to either a BASIC program or a ML program with a BASIC line containing the SYS call.

What I find usually helps in these situations is a simple reset and un-new. If you have a cartridge such as WarpSpeed or The Final Cartridge III, this is a simple task of just pressing the reset button and then using the OLD command. If you don't own a cartridge, try SYS64738 to reset, and POKE 2050,8 [RETURN] SYS 42291 to recover the program. Now attempt to save.

Controlling Radio Tip Warning

Rod Gasson writes with a warning to anyone who has attempted the 'Controlling a Radio' tip submitted by Glenn Jones and printed in the December issue.

"Glenn describes the user port pins as being labelled A, B, C, D, E etc along the top, and pins 1, 2, 3, 4, 5 etc along the bottom of the edge connector. In fact this is the opposite of the true situation (pins 1, 2, 3 on top and pins A, B, C on the bottom).

"As a consequence anyone attempting this method of controlling an external device the way described will at best be greeted with no success at all, and at

worse will cause the C64 to reset (pins 1 and 3 are the earth and reset lines).

"Besides this, should a user be smart enough to use the correct pins (A and C) they could get into more serious trouble.

"The C64 is only able to supply (or source) a MAXIMUM of 100mA (milliamps) via the user port. This 100mA is the TOTAL amount of all external devices, including cartridges.

"Glenn has obviously been lucky, and the radio he used requires somewhat less. He probably doesn't have a cartridge or REU plugged in, which can draw almost 100mA themselves.

"If this current is exceeded by any significant amount the internal fuse in the computer will blow, and hopefully no further damage will result. However the user port is connected directly to the CIA chip, and excess current could easily damage this chip, which is expensive. A worse scenario is that if this current is exceeded slightly the fuse won't blow, but the 5v regulator in the power supply will slowly "cook" itself and eventually go short circuit. When this happens 12 volts will be supplied to ALL IC's inside the computer. This will cause the RAM chips to INSTANTLY disintegrate, usually the fuse will then blow (too late of course), but often it can destroy any of the other chips, such as SID, VIC, CIA's etc. etc. as well.

"You should also point out that under NO CIRCUMSTANCES should an external device be connected to the user port without some form of buffering or current limiting. A simple 1k resistor is all that is needed to limit the current to a safe level.

"This can be reduced to about 100ohms if only one output is used, however by using 1k resistors all outputs can be used, and even if all external devices went short circuit the 100mA rating would still not be exceeded. The other reason I suggest 1k resistors is that if an external device requires more power than can be driven via a 1k resistor then that device really should have its own source of power anyway.

"Hooking the C64 up to the 'outside' world is fun and shouldn't be discouraged, but user beware; Play it safe and prepare for the worst possible scenario."

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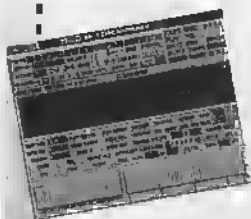
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Signature

Thanks for the warning, Rod. I'll make sure these types of projects are more thoroughly checked before being printed in future.

Parallel Printer Connection

J. McMames, of Alice Springs NT, writes:

"Dear Owen, Keep up the good work. I would like to know what I need to connect a C64 to an Epson LX400 printer and where it is possible to obtain the connections."

If you're a GEOS user, get the geoPrint cable. This is useful for printing from GEOS to just about any dot matrix printer. For more general printing you'll need a parallel interface. These range from \$75 for a simple and straight forward interface, to \$275 for one that will do everything except hang out your washing.

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As to where they can be obtained, check out the mail order advertisements in ACAR. One that springs to mind is Quadrant Computers.

C16/Plus4 Software?

Robert J. Alyari, of Frankston VIC, writes:

"Dear Owen, I own both a Commodore 64 and a Commodore Plus/4.

"I have heaps of software for both computers and each gets its fair share of use.

"I found a Commodore shop in Cranbourne, not far from where I live, that still stocks a fair amount of software for the C16/Plus4. I have most of the titles on offer in this shop, and was wondering if you knew of any retailers in Australia that may have some software, books, and peripherals for the C16/Plus4 hidden away? The thing I am really after is a Plus4 Programmer's Reference Guide.

"Also, what about Public Domain software for the C16/Plus4. Surely someone must have some? Please help. I would like to hear from anyone who still uses their C16/Plus4, and would appreciate it if you could possibly put an advert in the magazine please.

"I have an interest in sound and graphics, and also with robotics. My first question, is there anyway to connect up a black and white video camera (it has no sound), to the C64 and be able to store the pictures I video on disk, for later use, like printing out or editing?

"Also, I would like to connect up a robot I have built to the C64 so that it can control it etc. Unfortunately, I cannot find an interface, like the old Vic-Rel, to do this job. Can you still buy something like this and if so, where from?

"Lastly, does the PD1 disk you advertised in ACAR have the *Message Creator* on it? If not, where can I obtain a copy of this program?"

I haven't seen Plus4 software available anywhere for years. Has anyone had a recent sighting or can help with Plus4 PD software? Contact me.

Yes, you certainly can use a black and white video camera for capturing and editing images. Video Byte III is the

name of the device, and it can even capture images in real time (well, almost). There was a full review printed in the April 1990 edition of ACAR.

I haven't seen any interfaces such as the one you are referring to for quite a while. If you're handy with a soldering iron and know a little about electronics, you might like to get hold of the books *How to Make Computer Model Controllers* or *How to Make Computer Controlled Robots* (both published by Osborne). They explain how to connect and control external devices from the C64, Vic 20, Spectrum and BBC computers in layman's terms. Can anyone else offer some help or advice?

Yes, the PD1 disk contains the *Message Creator* program, along with over 25 other useful programs and utilities. Both PD1 and the User Software Disk are available for only \$6 each (make cheques payable to Owen James).

New Direction

Glenn Jones, of Buderim QLD, writes:

"I think ACAR has strolled down a track from which it cannot return - the track of the Amiga. Maybe it is time to seriously consider making this magazine *The Australian Amiga Review* BUT also producing a smaller, maybe not so glossy *Commodore Review*. This would contain all of the present articles. You (or we) could write longer and more varied articles. If there were the two separate magazines, the C64 readers would get exactly what they want and the Amiga users would not have to read any more letters like this. Not only would there be the normal three articles plus game cheats and BBS listings, there could be more electronics and user-port connections. Hopefully it would become a more reader-friendly magazine, with a lot of encouragement for readers to write articles. It would become more like a user-club magazine that was nation wide instead of little bits in between the Amiga articles."

Glenn's ideas have been suggested to me by numerous readers. Unfortunately, it is not as simple as just 'creating another magazine'. Magazines cost money to produce. You've got payments for

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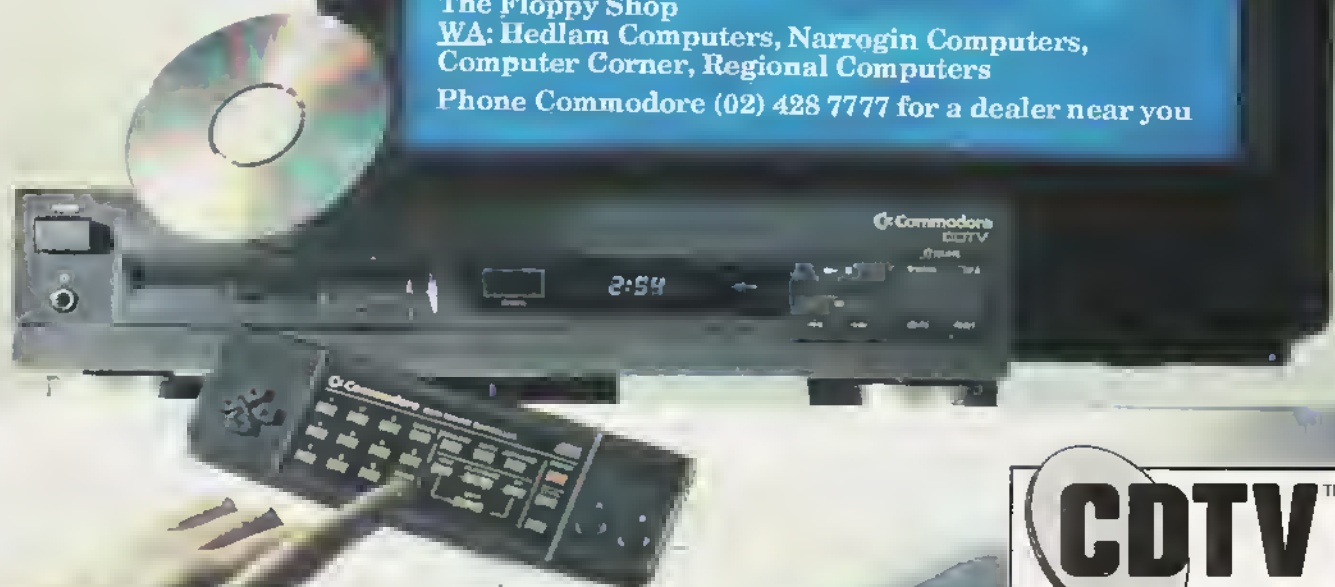
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writers, editors and any other 'in-house' staff, immense costs to get it published and printed, and then distribution costs to get it into the newsagencies.

To keep the cost to the end buyer down to a minimum, magazines must rely on the sponsorship of advertisers. Have a quick look at the advertisements in this month's ACAR. As I'm sure you'll see, most of the advertising dollar comes from retailers and distributors of Amiga products. There are just not enough advertisers to support a C64 magazine. The idea of a user-club styled magazine or newsletter sounds slightly more promising.

The Australian Amiga User Association produces something along these lines for its members, distributing copies by mail. Production costs have been kept to a minimum, but it has still retained a fairly high standard of quality.

Of course, there is always the problem of contributions. Even many Amiga magazines have trouble getting a steady supply of contributions. Would a C64 newsletter do any better? Let's hear some feedback on this.

Help!

David Upton, of Isabella Plains ACT, writes:

"Dear Owen, I am writing this letter in the first instance to once again congratulate you on your column. I find it very informative and useful and I have found uses for some of the programming tips and pokes.

"I enjoy using the computer for all those things that we originally bought it for (games, home budgeting, education for the kids etc). Really, though, it's the programming side of things that fascinates me, but my knowledge is limited. I have read the reference manual supplied with the computer several times and apart from magazine articles this has so far been my only source of information. I do realise that I really should buy a *C64 Programmer's Reference Guide* to further my understanding and intend to do so hopefully in the not too distant future. I find sprites to still be a baffling subject and the miracles of machine code/language is just that, a miracle.

"I guess that what I'm really saying is that if possible a little extra explanation of some of the short programming routines would be appreciated. I have read your reply to my first letter and understand your predicament, but I'm not after a complete rundown of everything, just a little more information. For example the short routine published which detected whether or not a disk is inserted into a drive. I used it and it worked but I haven't got a clue how it does it. A little more information on the program's workings would have been nice so that my (and probably others') knowledge and understanding would benefit.

"It may be that this means that this column needs to grow or it may herald the beginning of a new column. Perhaps you don't have the time or perhaps there isn't the demand, but maybe there is the demand and maybe just maybe there is someone out there in C64 land who would be interested in writing such a column. After all, how often do letters get printed complaining about the lack of C64 coverage and how often does ACAR reply that they would like to increase the coverage? If I had the knowledge I for one would put up my hand but it is lack of knowledge that prompted this letter. If you think that a programming column is a goer with yourself or someone else at the helm, then perhaps you might mention it in your column to see if it has any support from the legions of C64ers out there."

I'll try to include a general explanation of how and why things work in the future. The reason things don't get covered in more detail is because of time and space constraints. As I've said in the past, I need feedback otherwise I don't know what readers want. Thanks for your letter, now let's hear the rest of you voice your opinion!

C64 Game Console Flops

Marc Walters, of Edgeworth NSW, writes:

"Dear Owen, Here's some news you might be interested in:

"The Commodore GS games console (the C64 in a shoebox) has failed miserably in Britain. Commodore UK made 80,000 GS units, and sold 15,000. From

an initial price of 99 pounds, it is now being discounted to around 27 pounds. Too little too late. Commodore should have released the C64 console version years ago before Nintendo and Sega got a toehold in the West.

"I've been hearing some nasty rumors that Commodore Australia will stop selling the C64 here in 1992. Can you add any light?

"Why do I get the feeling that the GEOS and C64 Columns will soon be bundled together and renamed 'The C64 Ghetto For Those Who Aren't Trendy and Modern Enough to Own The Editor's and Advertisers' Favorite Type of Computer'?"

"It seems that us dedicated C64 owners who are not prepared (in Phil Campbell's words) to 'take the leap to Amiga land' are getting less and less support. I would love to see a Reader's Poll to find out the C64/Amiga reader balance. As with Edmund Tate (October Entertainment mailbox), I was also insulted by Phil Campbell's suggestion.

"In your October C64 Column there was a bit about the radio station using a C64 to do an in-house magazine. I remember a mate saying that one of the stations near Newcastle uses a C64 for its satellite linkups with Sydney. Exactly what it did I can't remember, but it was something technical."

I, too, have heard rumors about Commodore Australia not continuing the sale of the C64. Everyone I have spoken to has agreed that this would be a stupid mistake considering that the C64 is still doing so well as an entry level family computer. Sales of the C64 are even continuing to increase, though still way below the level it has enjoyed in better times. I can't see the C64 being dropped in the foreseeable future.

Combine the C64 and GEOS Columns? Who, me? I won't even write The GEOS Column any more. Due to other work commitments I just haven't the time. GEOS readers shouldn't worry, you'll still be looked after.

Well, it looks like my space is up. As usual, I want to hear from you. Tell me your problems, complaints, opinions and advice. You can reach me at The ACAR, PO Box 288, Gladsville 2111.

Catch you next month.

CDTV

News

Things are finally starting to hop in the world of Commodore's multi-media marvel. Long awaited add-ons are flooding in at an amazing rate, together with classy new second generation software. Read on for a glimpse at some of the latest developments.

A-690 Coming Soon

Commodore's Gail Wellington has confirmed that the A-690 CDTV add-on has just passed stringent European tests - the equivalent to the US FCC safety and emission trials. A small scale production run is now underway, with limited quantities shipping in the next few months.

Price details are still sketchy, but look for a price-point around a very reasonable \$699 or so.

CDTV/P add on pack

Turn your CDTV into a fully fledged computer, says Commodore USA - they're selling the CDTV/P add on pack, with keyboard, mouse, and floppy disk drive bundled together for around US\$300. We may not see the same deal here, though as you'll see when you read on, there are plenty of goodies now available.

CDTV Business Pack

An enterprising US CDTV dealer has put together a CDTV Business Pack. It's a CD featuring a full suite of business programs - wordprocessor, database, and graphics programs from New Horizons software. Package it with a CDTV, key-

board, printer and disk drive and you've got almost everything you need. Rumour has it that Commodore Australia have similar plans - CDTV, keyboard, printer, modem and software for under \$2,000. If they're going to do it right, they'll make sure it's a fax modem and a bubble jet printer - won't you, Commodore?

Reviews

CDTV Keyboard Adaptor

Here's a bandy low cost gadget if you've got an A-2000 keyboard lying round the house. Sydney's Hard Disk Cafe has a handy CDTV adaptor. This nifty lead lets you run your keyboard straight into the socket on the back of the CDTV, which will then run as a fully fledged Amiga compatible computer - all for just \$29.95.

The cream coloured cable is around 1.5 metres long. One end there's a socket for your keyboard lead, on the other end a plug that fits the socket on the rear of your CDTV.

In use, the keyboard is flawless. Unless you're running a rare text-based CDTV application, you'll probably be running an Amiga disk booted through an external drive. In this case, you'll find a whole new freedom exploring the CLI with your keyboard. I tried it out with the *Fish Disk Collection CD* - a compact disk containing 480 public domain Fish Disks - with great results.

Without the keyboard you'll find the PD disk is a bit of a nuisance. The best you can do is use *Diskmaster* to copy the files you want onto an external disk, then run them on another Amiga. Now, however, all the programs on the disk are a going concern - a mind expanding experience, with almost 400 megabytes to explore.

As I said, if you've already got the keyboard, the Hard Disk Cafe CDTV Keyboard Adaptor is an essential purchase.

"The Brick" - Infra-Red Trackball and Joystick Interface

Perhaps the most exciting piece of CDTV gear I've tested this month is the long awaited "brick", a combination

Our NEW personal computer magazine Australian

PC Review

For the Home & Small Business User

Yes, yes, we know. The Amiga is the only machine for the discerning user. But some of us have to use PCs and the vileness of MS-Dos. For such unfortunates we have created *PC Review* which tries to clear up the mysteries, sort out the problems and generally try to make the life of the PC user less of a total misery. Issue No 2 at your newsagents quite soon or subscribe to the usual address.

Every month from your newsagent \$3.50



CDTV Track-Ball/Joystick/Controller

track-ball/joystick/controller that replaces or supplements your standard CDTV remote controller.

The unit is about twice the size of the regular controller, and certainly isn't as elegant - hence the nickname "brick" when the unit was under development. Two standard joystick sockets are mounted on the front edge of the unit.

A golf-ball sized trackball sits on the right hand side at the top, with two large buttons along the upper rear edge of the unit in easy reach. A numeric keypad covers the left hand area of the top of the case.

So what does it do? Number 1, it makes moving the pointer around the screen an absolute breeze. Compared to the slow movements with the traditional controller, the trackball really flies.

I tested the unit with *MYPAIN*, a kids, colouring program, and the results were great - far less frustration in making menu selections and carrying out operations. In drawing mode, it could even manage smoothly curved lines, a clear impossibility with the old arrow-buttons.

Secondly, and just as importantly, the Brick lets you use a standard Amiga-style joystick. Let's face it - playing *Shadow of the Beast* with the standard CDTV controller just isn't a realistic proposition. But now, with a joystick beaming infra-red signals through the brick, it's beast slaying at its very best.

There's no perceptible delay in sig-

nal transmission, and the action is fast and smooth. It's a bonus when you're playing standard Amiga games loaded from external disk too - I played *Rodlands* with no hitches at all, sitting comfortably half way across the room.

Available from Sydney's Hard Disk Cafe, (02) 979 5833 this unit is a worthwhile addition to your CDTV system. With a RRP of \$199, I recommend it.

Karaoke All Night Long

In the last couple of years a strange Japanese craze has stormed the pubs and clubs of Australia - it's called Karaoke, and it's lots of fun. Here's how it works.

A fully fledged Karaoke machine

features a large scale laser video disk full of songs, complete with lyrics that appear on the screen in perfect time with the music. The idea is that carousing pub patrons join in, or take turns to jump up on the stage and sing along with the microphone provided.

Stop and think about it for a minute. Why can't we do the same thing with a CDTV. Well, the short answer is, we can. In fact, if you're running your CDTV through a sound system with a spare microphone input, you've got a fully fledged Karaoke machine.

Sydney's Hard Disk Cafe have imported a range of Karaoke disks, each featuring around 18 popular songs. And let me tell you - it's fun. In fact, the most fun I've ever had with my CDTV.

Mind you, when I first tried it out I looked pretty silly sitting in front of the telly singing *Raindrops keep falling on my head* at the top of my voice. But I just couldn't help it. It's fun, fun, fun - especially at a party.

Graphics and text quality on the disks are good. Typically, a song will have two or three fairly simple picture backgrounds, often totally unrelated to the lyrics, but nice to look at. Text appears in quite legible lettering, which can easily be read from across the room - perfect for parties.

The CDTV is much more than a Karaoke machine.

And I guess you could say that it's a simple application for a complex piece of gear. So what? You'll love it.

Available from Hard Disk Cafe (02) 979 5833. RRP \$69.95.



NEW Release - Japan World

Phil Campbell's Entertainment

All the latest news and views from the world of entertainment

Eye of the Beholder II - Coming Soon

Electronic Arts (ph 075 911 388) have announced the imminent release of *The Legend of Darkmoon*, sequel to the best selling role playing game *Eye of the Beholder*. The new title improves on the original game with a richer storyline, improved graphics with a spectacular animated opening sequence, an updated point-and-click user interface and a much bigger adventuring area.

Legend of Darkmoon will require 1 Meg of memory to run, and will retail for \$69.95.

New Newsletter for C-64

Scott Logan, of 9 Collington St Mansfield Qld, has launched a new C-64 Games Club, complete with a newsletter and Bulletin Board access. The Club 64 BBS can be contacted on (07) 808 3839 Thursday to Sunday after 9pm. The newsletter offers hints and tips, brief game reviews and a message-mates service that puts you in touch with other C-64 gamers. Don't expect a glossy, impressive looking publication - in fact, it's all produced on Scott's C-64. But it's clear, effective, and a good resource if you're looking for more support for your C-64.

Game Music CD

Here's an interesting idea from our friends across the ocean. UK firm Digital Dreams has produced an Audio CD featuring all your favourite game themes. First release is a disc featuring 52 minutes of Gremlin Graphics hottest hits, and the second release provides 58 minutes of haunting sounds from Psygnosis.

No Australian distributor has been announced, so you'll have to contact Digital Dreams direct.

They'll cost around \$40 for the pair, and you can phone Digital Dreams in the UK on 0602 754991.

Top Games Next Month

Watch out next month for a full review of *Populous II*, and the amazing *Populous Wo*.

Mindscape Jimmy White Snooker Competition Winners

Good news for five lucky readers! You've won a copy of the brilliant *Jimmy White's Whirlwind Snooker* from Mindscape.

First, here are the answers.

Jimmy is ranked third in the world. He was 16 years old when he won the English Amateur Championship.

Words that rhyme with snooker are Bazooka, Euchre, Melaleuca and spruiker.

The chalk is blue, and there are 22 balls used in a standard game of snooker.

So ... drum roll ... the winners are:

Mr D. Steward, of 28 Jordan Hill Rd, North Hobart Tas 7000. Ms B.J., of 1 Burke St, St Arnaud Vic 3478. Mr David Thompson, of 1 Ravenshaw St, Merewether NSW 2291. Mr Ian McDonald, of 90a MacKenzie St West, Golden Square Vic 3555. Mr Robert Davidson, PO 410, Greensborough, Vic 3088.

Congratulations, and thanks to Mindscape for the top-class prizes!

C64 Exclusive Mindscape February Competition

Okay, C64 readers, you keep complaining that we don't love you. So this month, Mindscape are giving away four copies of the Commodore 64 version of *Captain Planet*.

Programmed by the Software Toolworks, the game features the star of America's newest cartoon craze, the Eco-Friendly Captain Planet, and promises to be a smash hit. So if you want more C-64 competitions, make sure you enter!

What do you have to do? It's easy. Just make the biggest single word you can by re-arranging the letters C A P T A I N P L A N E T, write it on the back of an envelope, and send it to:

Mindscape Competition,
c/o Phil Campbell,
PO BOX 23,
Maclean NSW 2463.

The competition closes at the end of February, so get moving!

ENTERTAINMENT & HINTS & TIPS

Send your hints and tips for Amiga games to Phil Campbell, PO Box 23, Maclean NSW 2463.

See the note below about hints submitted on disk.

Mean Streets and Police Quest

Brendan Santospirito was asking for help with *Police Quest* and *Mean Streets* in the January issue of ACAR. Well, Brendan, good news. Mark Harris, from 158 Birrell St Bondi Junction 2022, has completed both games and would be happy to help out. Phone him on (02) 369 4920 before 11am or after 6pm, or write to him at the address above and all your problems will be solved.

Star Flight

Chris Mclean, of Palmwoods, Qld, earned himself a free copy of the ACAR Hints disk by sending the following tips on disk. If you'd like to do the same, just send me a nice pile of good advice on an Amiga disk, with a stamped, self addressed envelope. What a deal!

Now, says Chris, if you would like a heap of money in *Star Flight*, sell your fuel. When it asks if you want to sell it

all, say no. Now type in as much fuel to sell as you want, even if you don't have that much, and it will give you the money for it without even taking the fuel you have.

Leaderboard

Also from Chris comes this handy golfing tip - unfortunately, it doesn't work in real life! If you're stuffing up a hole, simply hold down CTRL and press h to go to the next hole.

TV Sports Basketball

Chris is a basketball fan too! Using a text editor, Chris says to load up the file on disk 2 called "Rosters.Prt". This file contains all the stats for each team. All you have to do is find the team you want to change, and change it.

Just remember that each individual stat can only be 8 at the highest and that the changes you make won't show up on the in game rosters, but will be very noticeable while playing.

Interphase

In the game type Fenny (remember capital F) to access the object displayer.

Interceptor

Still the greatest flight sim of all time! And for some extra missions, Chris suggests you select free flight, then press '6', '7', '8' or '9' for the respective missions. You'll have to work out what to do for yourself, says Chris.

Also, leave the the disk write enabled while loading to access all of the missions straight away.

Lotus Turbo Challenge 2

Graeme Beaven, of Wyong NSW is also enjoying his free copy of the ACAR Hints Disk in exchange for this little gem. Here's what he says:

Lotus Turbo Challenge 2 is a race against a friend and also a race against time. There are 8 courses to choose from, ranging from road races to off road circuits. For a nice effect try driving under the trailer section of the semi trailer as it crosses your path in the Motorway Course!

Codes needed to play are:

FOREST COURSE - this loads without codes.

NIGHT COURSE - type in TWILIGHT

FOG COURSE - type in PEA SOUP

SNOW COURSE - type in THE SKIDS

DESERT COURSE - type in PEACHES

MOTORWAY COURSE - type in LIV-ERPOOL

MARSH COURSE - type in BAGLEY

STORM COURSE - type in E BOW*

Thanks Graeme, I've been looking forward to trying out the advanced courses, even though I'm still stuck in level 1. You're right - it's a superb game.



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Entertainment Letters

Send your entertainment letters to: Phil Campbell, PO Box 23 Maclean NSW 2463. Keep your scribblings short, to the point, and entertaining, and more than likely you'll see yourself in print!

A Bung Nobunaga? Oh No!

Dear Phil, I recently purchased *Nobunaga's Ambition* - although a brilliant and addictive game it's very slow between screens. The answer was simple - purchase a hard drive then install the game. This was unsuccessful.

I began by starting the program as described on the reference card. But when the hard drive is accessed, nothing happens. After a second or two the amount of free memory is decreased, however in my case it stayed the same.

Next I attempted to "run" the program from the CLI - this resulted in the error message "oda/data_a/nobunaga failed returncode 65535."

Back to the supplier (ComputerSpot - Penrith).

Their response? "Don't know, I use an IBM compatible myself ... works fine on my machine".

So much for Amiga support.

I also sent a letter to the software house (Koci Corporation), no response.

I guess it's back to playing the game the tedious way. That is, unless you or one of your readers is able to help me.

David Dilkes

Mt Pleasant, NSW

Ed: Well, David, I guess there are plenty of other *Nobunaga* players with hard disks out there. Can anyone help out?

Big Questions

Dear Phil, When will *Test Drive III* be

out and how much will it cost?

Do you know anything about *Wing Commander* on the Amiga 500?

Could you please compare the IBM 286 with say the Amiga 500, it would be good to see what really goes on.

Daniel Bett
Horsham, Vic

Ed: Any other impossible questions while you're at it, Dan?

Seriously, though, I don't know when to expect *Test Drive III*. You'll just have to watch out for a review sometime in the future.

Wing Commander, on the other hand, is apparently due out in the next couple of months. I'm not sure how they've managed to convert it to run to the Amiga, what with the superb 256 colour VGA graphics and large scale animations. On the PC it takes around 8 Megabytes of hard disk space - how are we going to manage that on a typical A500? Good questions, but we'll soon find out. And let me tell you, it's an absolutely superb game on the PC.

Comparing '286 based PC with an Amiga 500 is difficult. It's probably more relevant to talk about comparing a '386 these days, because PC compatible prices have dropped dramatically. As always, though, it depends on your option level. Super VGA graphics are superior to the standard Amiga. An add-on sound board like the SoundBlaster or Ad-Lib aren't quite up to the Amiga standard, but do a pretty good job. Most PCs come with a hard disk as standard - a great asset. But a PC can't multi-task like an Amiga, nor can it move great hunks of graphical data as easily as the Amiga, nor does it have hardware sprites.

In the game arena, the PC is great for "epics" like *Wing Commander*, as well as games with 3D vector graphics. The Amiga is still tops in shoot-em-ups and action style games, and in the area of music and sound effects.

New Commodore?

Dear Phil, Recently reading ZZAP 64 I noticed a forum type discussion on the C-65 which Commodore are supposed to be bringing out. Do you know much about the supposed C-65? How

come I have not seen anything about it in the ACAR? If it is real, could you do a write up of it to let people know what's happening please.

Philip Mayer
Glen Innes, NSW

Ed: Commodore's Australian office reports that the C-65 actually got to the drawing board stage at Commodore UK, then was scrapped. Supposedly an advanced C-64 with blitter capabilities and 4096 colours, the machine was a nice idea - however, it's hard to see a suitable market niche for an enhanced 64 when the price of the Amiga 500 is now so low.

Tips for Sale

Dear Phil, I have just made a collection of disks for C64 users which I am selling for \$7.50 each. There are two disks for Reset cartridge owners with hints & cheats. There's another disk for Action Replay owners full of cheats. Another caters for tape drive users of cheats & hints and another contains general hints and tips.

Steve Hedges
11 Dunford St

Whyalla Stuart SA, 5608

Ed: Thanks Steve.

Readers can contact you direct if they're interested in your disks. But how are tape drive users going to access their disk?

Just Horsing Around

Dear Phil, I have been a regular reader of your magazine for some time now and I look forward to it each month.

I would appreciate any kind of program that someone out there has on horse racing (i.e. you input all the information and it uses some kind of regression formula to work out what should win).

I did have one which used the form guide from the Australian newspaper but I am unable to find it anymore. Hopefully some one can help me.

Contact me on (079) 922719.

Mark Brand
Biloela QLD

Ed: If you can't help, please give Mark a call on the number above.

Good Value for Money

Dear Phil, For the last four months I've been buying a number of overseas Amiga mags but after purchasing a copy of last month's ACAR I was surprised at the amount of content, info etc inside the magazine. It's certainly good value for money and has a lot more content than a number of its glossy overseas counterparts.

Darren Mummery
Golden Grove SA

Ed: Thanks for the comments, Darren. We're glad you think the mag is such good value - and we agree!

C-64 Games Club

Dear Phil, I have just begun The C64/128 Games Club and was wondering if you could make a mention of it in your Entertainment Letters Section. It seems that there are still a lot of C64/128 users out there but it is just a matter of me getting in touch with them.

The club is a nationwide club where members can get in touch with each other via a service called message mates. There is also a bi-monthly newsletter. The club is free but due to costs of postage etc. I charge \$6 per year, which is quite reasonable due to the time &

money I have invested in it. Please ask people to send a 45c stamp for more info.

The club is also linked via CLUB-64 BBS on (07) 808-3839 on Thurs, Fri, Sat & Sun after 9 Pm.

Scott Logan
Mansfield Brisbane, QLD

Ed: Hope the club goes well, Scott - there are still plenty of C-64 users looking for more support, so your services should be warmly welcomed.

Hall of Fame

Send your authentic high scores to:

Phil Campbell,
PO Box 23 Maclean NSW 2463.
Please mark clearly whether your
scores are for C-64 or Amiga.
And remember - NO CHEAT
MODES ALLOWED!

AMIGA

ACTION FIGHTER 132,530 R. Baker
ALERT 359,700 Robbie Baker
ARKANOID 1,052,610 Steven Walter
AMAZED 130,500 Chris Turnadge
BAAL 134,250 Dave
BATTLE COMMAND 334,200 Peter Cain
B. SQUADRON 99,999,999 A. Burbridge
BEYOND ICE PAL 67,626 (c) C.
Turnadge
BIO CHALLENGE 29,000 Aaron
Sanderson
BLOCKOUT 65,281 Stephen Lark
BOMB JACK 382,310 David Dikes
BUBBLE + 276,850 (c) Chris Toyne
B. BOBBLE 2,124,640 K. Renzenbrink
BUDOKAN 6:08min (c) Mark Sorensen
BUGGY BOY 113,260 Powerhouse Nick
CAR-VUP 484,122 Happy Hacker
CHASE HQ 7,426,060 Powerhouse Nick
CONT. CIRCUS 4,815,390 Dolly
C. CARS 88,922,304 (c) Mark Sorensen
C. CARS CHALL 3,000,000,000 Michael
Summers
C. HAMMER 43,847 David Thompson
CYBERBALL 475,000 David Marsh
DENARIS 53,900 Peter Evans

DIABLO 1,420 Timothy Johnson
DRAGON NINJA 246,400 R. Matthews
DOUBLE DRAGON 138,840 G. Wilson
D. DRAGON II 167,830 (c) D. Carsburg
EDD THE DUCK 5,820 A. Gormly
ELIMINATOR 246,570 Greg Munro
EMERALD MINE Level 23 (c) T. Johnson
FLOOD 6,455 Embah Beaton
GEE BEE AIR RALLY 308,726 R. Irwin
GIANA SISTERS 63,720 D. Chapman
GODS 3,957,922 (c) R. Pitt
GOLDEN AXE 70.3 (c) Kevin Mills
HYBRIS 2,345,355 Graham Wilson
IK+ B40,920 Powerhouse Nick
IMP, MISSION 68,380 D. Unwin
IMP, MISSION II 67,900 (c) D. Dikes
INDIANA JONES L.C. comp. P. Nico
INDIANAPOLIS 500 38,17sec
235.78mph Kevin Newman
INERTIA DRIVE 33,190 (c) Ben Toyne
KARATE KID II 54,000 M. Summers
KLAX 4,398,040 Happy Hacker
LEATHERNECK 86,500 Shane Crossland
LIVE AND LET DIE 96,520 M. Beaton
MAJOR MOTION 50,658 Owen Webster
MENACE 996,481 Kamikaze Andy
MIDNIGHT RESISTANCE 302,550
Copei Lost your name!
MINDWALKER 306,214 P. Schumacher
MOUSETRAP 71,877 Dave Rich
NARC 189,800 Damien Carsburg
NINJA MISSION 68,528 Chris Toyne
NITRO 261,000 (c) Damien Carsburg
NUCLEAR WAR (c) Paul Rucci
N. Z. STORY 546,585 Embah Beaton

ONSLAUGHT 16,179 Andrew Gormly
OPERATION THUNDERBOLT 53,000
Andrew Gormly
OPERATION WOLF 355,680 G. Wilson
OUTRUN 26,831,122 (c) Benjamin Moen
OFF. WARRIOR 628,345 J. Booth
PACMANIA 3,250,140 (c) Amos Burbridge
PINBALL MAGIC 332,390 T. Chilcott
PINBALL WIZARD 1,026,360 G. Stone
PIONEER PLAGUE 35,412 Ker Scooby
PLUTOS 288,000 Dave
POPULOUS 347,890 Michael Summers
PORTS OF CALL \$3,654,844,000 Status
1033 Troy Clarke
POW 812,855 David Thompson
R. ISLANDS 9,999,999 (c) T. Johnson
RAMPAGE 212,912 Graham Wilson
RICK DANGER II 68,450 S. Southurst
ROBOCOP 375,520 Michael Summers
ROTOX 183,050 (c) Faye Doherty
SIDEWINDER 904,350 S. Easley-Eades
SILKWORM (Hell) 4,079,300 (c) Ioeman
SILKWORM (Jeep) 622,500 D. Everton
SKWEEK 3,375,400 Faye Doherty
SPACE ACE 22,140 Neville Clarke
SPACE HARRIER 210,855,250 Maverick
SPEEDBALL 17,650 Amos Burbridge
STARWARS 5,722,822 C. Minges wave
33
STRIDER 175,350 Neil Young
SUPER CARS 17 rees Maverick
SUPER HANG-ON 25,042,850 D.
Worthy
SUP. OFF-ROAD \$350,000 A. Gormly
SUP. WOND. BOY 87,190 J. Stubblings
SWIV (HELL) 1,759,820 (c) S. Southurst
SWIV (JEEP) 1,788,100 Steven McKinlay
SWORD OF SODAN 403,500 S. Begley
TEEN, M.N.T. 546,600 (c) James Lecken
TEST DRIVE 131,076 (c) Jordan Nogiel
TEST DRIVE 2 659,902 M. Summers
TETRIS 35,820 Michael Summers
TETRIS Level 232 Stephen Lark
THE RUINING MAN 123,500 D. Rucci
THUNDERBLADE 2,034,040 De Moose
THUNDERCATS 522,300 S. Southurst
TOWER OF BABEL 25,934 (c) S. Lark

TURBO OUTRUN 100,260,819
Matthew Mantle
TURRICAN 1,735,100 (c) Adrian Jenkin
TURRICAN II 2,585,700 (c) M. Diggins
TV-S BASKETBALL 178-0 D. McKinney
TV-S FOOTBALL 189-0 D. McKinney
TWINWORLD 24,640 Carol Love
TYPHOON 54,255 Owen Webster
VIRUS 19,801 Scott Southurst
WHIRLIGIG 28,210 Nathan Allen
WINGS 432 kills Robert Irwin
WINGS OF DEATH 56,670 Robert Irwin
WONDER BOY 291,350 Maverick
XENON II 1,107,280 (c) Mark Porta
ZOOM 87,051 Steve Jones

COMMODORE 64

ALLEY CAT 1,101,150 Simon Mitchell
ALTERED BEAST 251,250 (c) A. Blanch
ARKANOID B22,200 The Joker
BATMAN 473,230 John Nunes
BATMAN-THE MOVIE 1,087,080
Michael Bradley
BANGKOK KNIGHTS 39,600 Josh Smith
BOMB JACK 521,820 Adam Wade
B. BOBBLE 6,863,830 (c) D. Gavrilovic
BUGGY BOY (c) 153,000 Adam Wade
CABAL 175,600 The Joker
CHASE HQ 11,366,900 (c) Happy Hacker
CHASE HQ II 28,100 (c) Adam Wade
CREATURES 10,123 Adam Melinowski
DAVID'S MID MAGIC 669,150 The Joker
DOUBLE DRAGON 35,820 (c) A. Pressad
DOUBLE DRAGON II 255,190 Nick van
Heeswyk
DRAGON BREED 496,870 Happy Hacker
FAST BREAK 136 to 9 Chris Byrne
GHOSTS AND GOBLINS 325,600 Adam
Wade
GHOULS AND GHOSTS 558,110 (c)
Adam Wade
GIANA SISTERS 287,100 (c) A. Wade
GRYZOR 211,200 Glidan Aslari
H. MARADONA Level M N. van
Heeswyk
HAWKEYE 207,550 Adam Wade
IKARI WARRIORS 306,300 J. Aldridge

INT. KARATE 139,300 Paul Millward
LAST NINJA II 21m30s (c) David Carter
MIDNIGHT RESISTANCE 28,540 (c)
Dennis Pike
NEMESIS 1,633,200 Adam Wade
OPERATION THUNDERBOLT 78,600
Adam Annen
OPERATION WOLF 776,350 W. Diaz
OUTRUN 16,952,780 (c) Adam Wade
PARADROID 103,000 Chris Nilsson
PAPERBOY 103,100 (c) John Nunes
PIRATES 143/100 D Steward
POWERDRIFT 872,940 (c) Adam Annen
QUE-DEX 639 Chris Byrne
R-TYPE 1,890,210 Alul Prasad
RAINBOW ISLANDS 7,653,241 Adam
Malinowski
RAMPAGE 180,000 Adam Wade
RICK DANGEROUS 66,280 Adam Annen
ROBOCOP 237,170 (c) Adam Wade
ROLLING THUNDER 417,260 A. Wade
SALAMANDER 235,300 Paul Millward
SHINOBI 664,372 (c) Winston Diaz
SILKWORM (Hell) 965,200 (c) A. Blanch
SILKWORM (Jeep) 244,500 (c) A. Blanch
SKATE OR DIE Freestyle 22,095 The
Joker
STREET FIGHTER (c) 169,900 Adam
Wade
SUPER CYCLE 223,040 Andrew Gormly
TARGET RENEGADE 330,450 C.
Byrne (clocked)
TEST DRIVE 36,144 (c) John Nunes
TEST DRIVE II 249,543 (c) A. Batroc
TETRIS 35,335 (459 lines) Adam Annen
THE TRAIN 9,500 (c) Adam Annen
THUNDERBLADE 1,734,040 Troy
Montan
THUNDERCATS 269,600 Joseph Wright
T.M.N. TURTLES 1262 Adam Annen
TRAZ 54,560 Dave and Sue Upton
TURRICAN 1,239,040 Adam Melinowski
UNTOUCHABLES 70,230 S. Wetford
WIZBALL 990,889 (c) G. Beaven
WONDERBOY 660,320 Happy Hacker
Scores followed by (c) indicate that
the game has been completed.



These days, the RPGs are coming thick and fast. And who better to check them out than Andy Phang. Read on for Andy's assessment of a game with rotten graphics, but the best gameplay in years.

It's been 19 years since your last great adventure. Back then, destroying the Crystal Planet that threatened to annihilate every star system in its path earned you fame and fortune. Well, fortune can disappear pretty quickly, as you've found out. Fame doesn't pay for the repairs to your starship.

Time for a new challenge, and the boffins at Intersiel just happen to have an assignment right up your turbo thruster.

This time the threat comes from the Spemin. It seems that the former "whipping blobs" of the galaxy (fans of the original *Starflight* game will undoubtedly remember some good times with these "spineless" creeps) have suddenly obtained an unlimited source of fuel. Indeed, since the ban on endurium as starship fuel 19 years ago, various alien races had to scour the galaxy before discovering shyneum, the current standard which the Spemin have control over.

Unfortunately, the Spemin have also acquired deadly new technology for their

vessels, including plasma bolts, a combat phase jump device, and a shield capability superior to any other in the galaxy. Spemins have long memories. They want their revenge on all Earthlings. And that includes you.

At first glance, *Starflight 2* looks exactly like the original, and I mean EXACTLY. MicroMagic, the team which converted *Starflight* from PC to Amiga two years ago, is also behind this one and it shows. They've moved over all the same old graphic routines to *Starflight 2*, from the introduction screen to the space travel animation, to the planetside visuals. Sure, there are one or



two new pictures to look at by virtue of the increased number of alien races that inhabit the galaxy, and Spaceport is now a cylinder instead of a circular station, but other than that everything else is the same. This is quite a disappointment, as I'm sure Electronic Arts received lots of mail expressing the dissatisfaction felt by Amiga owners over the graphics of the original *Starflight*.

Sound effects are limited to combat (explosions and laser fire), though I always thought that "in space no one could hear you scream."

While there isn't any in-game music, the title screen tune is very nicely put together.

So how can I recommend *Starflight 2* to the computer gamer, when there are no flashy graphics or sound to "sell" it? The answer is a single, simple word - gameplay. The depth and sheer playability of *Starflight* made it a winner



Games Update

Welcome to the first in an ongoing series of Amiga entertainment news. This column is brought to you by the knowledgeable guys at **Interlink Software** (see their ad elsewhere in this mag).

By far, the most eagerly awaited title at present is Microprose's **Formula 1 Grand Prix** (written by the same guy who brought us **Stunt Car Racer**). This game is so accurate that all 16 race circuits are authentically reproduced. It is sure to be the **Indy** beater! It should be out now!

Now that Origin's **Wing Commander**'s Amiga release has been delayed (again!), attention towards Ocean's **Epic** has intensified. If you are after a 3D space combat simulator written specifically for the Amiga then this is the game for you. Once again it should be out by the time you read this.

Fans of **Railroad Tycoon** can expect big things when the Amiga version of **Civilisation** is released. We've looked very closely at the PC version and it seems to be a much improved version of that old classic **Empire**. This is typically brilliant Microprose stuff. Due in April, best reserve your copy with **Interlink**.

Sierra continue to churn out even better Amiga adventure games now that they have made use of the Amiga's 32 colour mode and have also overhauled their interface. Both **Leisure Suit Larry V** and **Police Quest III** are two Amiga games to have benefited by Sierra's new style.

Any of the above games can be ordered or discussed with **Interlink Software** on (06) 293-2233. New releases are generally reviewed in their **AmigaLINK** Disk Magazine.

Cheers,
The Games Gurus

SHIP CONSTRUCTION

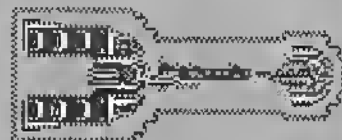
Select Transaction

Buy
Sell
Repair
Name
Done

ISS

Total Pads: 7

Engines: Class 1
Shields: Class 1
Armor: Class 1
Missiles: None
Losers: Class 1



Mass: 184 Tons
Accel: Very Poor
Shyneum: 150.0 M³

Your account balance is: 15400 SP

with RPG fans around the globe, and its sequel is no exception.

While your ultimate quest is to uncover the secret behind the sudden Spemin aggression, *Starflight 2* also places heavy emphasis on trading goods with other lifeforms. There are 29 new races to interact with, ranging from the aggressive G'nunk to the oddly named Dweenle to the even more oddly named Humna Humna. Carefully note down what items each race would give their fifth limb for, and make huge profits by selling such goods at inflated prices. If you find something that the aliens really want, you might receive useful items such as Planetary Transporters and Phase Inductors in return.

Options in trading have been expanded to include bartering, which means you can spend a LOT of time haggling over the price of items. Of course, if you're too unco-operative, your potential client may lose interest altogether and eject you from the trading post!

You'll find different methods of trading with different cultures - some will bargain a lot, others won't bargain at all. Being diplomatic at all times will ensure a good price for your cargo, though a little cunning won't hurt either. All this trading not only fosters better relations between you and your neighbours, it also fulfils a much more important function - making money. As an ancient

philosopher once said, "Greed is Good".

You'll soon find that upgrading your ship takes a lot of SP (shyneum pennies, in honour of the new fuel), as does training your crew.

There are other ways to make SP, such as putting forward recommendations of worlds suitable for colonization. Or you could always salvage scraps from the debris of destroyed enemy vessels, if you like the odds stacked against your ship.

The greatest strength of a game like *Starflight 2* lies in its ability to actually put you there in the Captain's seat. Exploring strange new worlds, encountering new life forms, boldly going where no man has gone before... true, it sounds like a cliché, but somehow the sense of pioneering into the furthest reaches of space has been magnificently recreated in this game. Technologically, *Starflight 2* could have been much better product. Gameplay wise, it's one of the best I've seen.

A satisfying challenge for all comers.

Ratings:
Graphics: 30%
Sound/Music: 55%
Gameplay: 94%
Overall: 90%

Distributed by Electronic Arts, (075) 911388. Amiga RRP \$59.95.

Hard Nova

Our resident RPG guru Andy Phang takes a hard look at Hard Nova. What does he find?

Hard Nova is quite an innovation in today's software market. First, the game's feature character ("Nova") is female. Not just any female, but a rough 'n' tough, no nonsense freelance mercenary for the Starkiller Group. Nova's been through a tough time lately - her last ship was destroyed by a meteor collision and most of the crew were killed. Now that she's finally got herself together, she discovers that new crew members are hard to get hold of.

Apparently someone has been spreading nasty rumours about her piloting abilities - the chances against a space vessel being destroyed by a meteor collision are apparently quite astronomical.

The second distinguishing factor which sets *Hard Nova* apart from other RPGs is its actual graphical interface, which can best be described as a cross between *Starflight* and *Zaxxon*. Remember the scaled 3D view used by the classic arcade blaster cons ago? Well, it's back in *Hard Nova*, and used to display ground movement on the planets that inhabit the Four Systems.

Travelling in space brings up a small window not unlike *Starflight*, where your little ship is seen hurtling across the galaxy from a slightly overhead view. Unfortunately, movement on ground and in space seems a little slow, and there is little animation throughout the game.

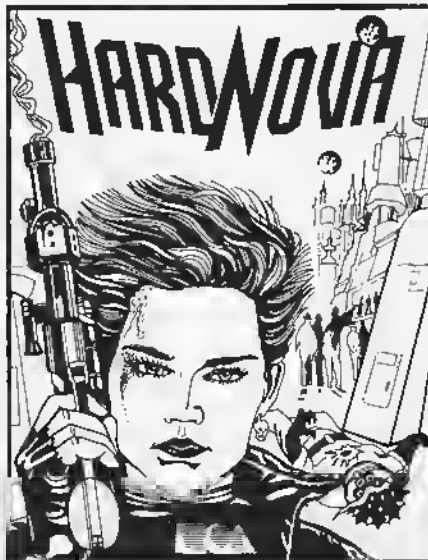
Visiting the different cities that are found on inhabited planets brings up yet another graphical mode, this time an *Ultima*-like overhead depiction of your character.

Cities are great for exploring, especially the local bar (old habits are hard to break), weaponry stores, and battle arenas.

You start off on the planet Mastassini, looking for someone (anyone!) to join your ship. Pretty soon you're launching

into space, looking for some job (any job!) that will restore your pride, your confidence, your reputation, but most of all, your bank balance.

Hard Nova combines mouse and keyboard controls to provide a fairly smooth method of playing the game. Certain function keys will provide a faster response than clicking the mouse, but on other occasions (such as space flight) the latter might have the edge. There are a



lot of options available, accessed in a series of menus. Clicking on Nova's icon will bring up a list of her statistics (no, not THOSE "vital statistics"!), and from there you can have a look at her inventory, her particular skills, armour and weapons levels, and so forth.

Options for your space ship are just as comprehensive, with icons for communications, combat, crew assignments (and there are a lot of different posts to be filled on your ship), and more.

Talking to the other non-player characters (NPCs) in the urban jungles often reveal vital information regarding the various assignments you undertake as a

mercenary. Whenever you speak to a NPC, you'll be presented with a picture of the person (or thing) and your responses can be chosen from a selection to the NPC's comments or questions.

Hard Nova handles NPC interaction extremely well, with each NPC seemingly having his or her own personal history. Talking to certain NPCs can also be quite amusing at times. Try having a chat with the Lamprey creature that you'll encounter on Starkiller Base.

In terms of plot, the introduction screens provide a mysterious indication of future events in the game. At the start, all you can do is complete your missions given to you by Starkiller Base, and maybe fit in a few smuggling operations along the way. Remember that bank balance?

Later, though, Nova will come across what proves to be the major quest of the game - to encounter and deal with a race of alien origins that inhabit a star system connected to yours by a StarGate.

A dying star threatens to wipe out these aliens, and they've decided to leave their home planet in search of greener pastures. Guess where they're headed?

I have mixed emotions about this game - the interface is difficult to get to grips with initially, but once you do it becomes fairly easy to control. The various "styles of play" are certainly interesting and original, and having a female lead character was fun (in a wholesome sort of way - no nasty thoughts here, please!).

Yet the game wasn't to be as involving as something like *Starflight 2*. Somehow, the emotional experience that you usually get from playing (and often, completing) a RPG simply did not rise to a level of personal satisfaction. Of course, this opinion will not be the same for each individual gamer. I guess it all comes down to your own selective tastes.

Ratings:

Graphics: 80%

Sound/Music: 88%

Gameplay: 75%

Overall: 81%

Distributed by Electronic Arts ph
(075) 911 388

Amiga, RRP \$29.95

Necronom

Nimble fingered Dave Sanna checks out the latest in fast-blasting space action in Necronom. What did he think? Read on.

A hah! ... Gotcha ... BOOM, another one gone, that'll teach ya for taking me on. HA! Oh no ... not the Guardian ... AARRRGGGHHH! KA BOOM!

Ah, alas the pains and strains of your everyday shoot-em-up! But I'm not playing your usual pinni-style thriller. No. I'm playing *Necronom*.

"DEEP IN SPACE IN A GALAXY FAR, FAR AWAY ..." reads the blurb on the back of the *Necronom* package - a fairly common sentence. And in many ways *Necronom* is the same as all those other blasting, explosive games. Except for one thing ... your input on how your ship will perform, and on the intellect of your opponents.

At the beginning of the game a dashboard appears displaying the following weapons: Fire power, Ship speed, Bullet power, Bullet speed, Bouncing bombs, Homing missiles, Shield and Disrupter bombs. Each weapon needs energy to work. You only have six credits to use to increase the energy of the selected weapons. The more levels that you complete, the more credits you gain.

There are codes for each level which are needed, because apart from the fact that the game has 32 long levels it's also incredibly hard. That means it's a game that's going to keep you going for quite a while - when you get frustrated, keep plugging on, because ending a level is very rewarding.

The main game begins after you have chosen the weapons. A map of the galaxy shows worlds you have conquered, and the one you're about to go to.

After completing the first level

you can choose from three close destinations which are on the map. This is very helpful - if you can't complete a world you have two more to choose from. You'll also see a small picture of the landscape and the end of level guardian.

During the game there are several bonuses to collect which activate the bouncing bombs and the homing missiles or give you an extra life.

The arrangement of fire power in this game is excellent. There are four directions in which your fire power can travel: Single fire, Triple fire (front), Triple fire (back), and sidefire (up and down). An autofire or an extremely itchy trigger-finger is necessary for most of the worlds!

There are many different aliens on the first stage with different personalities. Some chase you, some fire at you - all of them keep you on your toes! The points for each alien you annihilate are shown after the respective explosion.

The graphics are very detailed, above

average for the Amiga, but the explosions tend to get a bit plain and repetitive after a while - still, they do the job.

The background is either a continuing pattern of squares or lines, or just plain black leading to the highly detailed foreground, which features flaming volcanoes and fire monsters.

The sprites are very well drawn and the programming for their movements is ... annoying! Animations - all 3000 frames - is quite good.

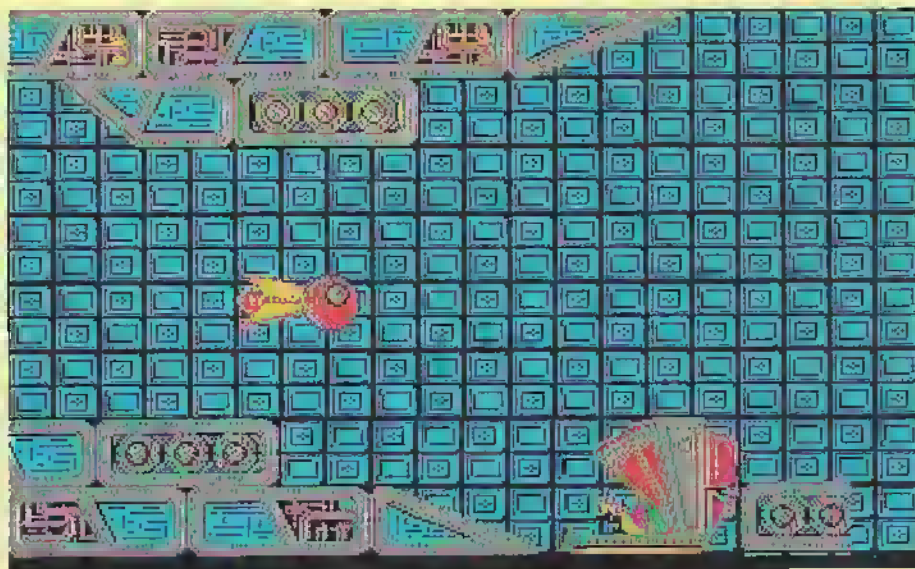
The musical score is great. I like a game with music setting the mood for the game and *Necronom* sure has it! A never ending array of quick lively music boosts the playability a lot. The accompanying sound effects are only mediocre, though, which is a bit of a let down - as in the graphical department, the explosions don't have enough "grunt"!

In conclusion, your first impressions of this game may be confusing and aggravating, due partly to the lack of a good manual.

But this game has definite promise! I really enjoy a great shoot-em-up, and if you do too then *Necronom* is for you!

Graphics	83%
Playability	90%
Sound	80%
Overall	87%

Distributed by Pactronics (02) 748 4700. Amiga RRP \$59.95.



Ken Simpson wades through a weighty instruction book and polishes up his strategic skills as he takes on Mindcraft's new release ...

Rules of Engagement



This is one of the hardest reviews I have ever had to write. Not because the game is awful nor even that I have difficulty trying to explain what the game is all about. The difficulty I have is turning the game off long enough for me to write it. Not since *Elite* have I been quite so totally captivated by a game.

In fact, *Rules of Engagement* is somewhat like a mix of *Elite* and *Star Trek*.

Rather than being a space trader you are an officer in the navy of the Federated Worlds that has just been declared war upon by the United Democratic Planets. Have you ever noticed that when governments put the word "Democratic" in their name, they are almost always not democratic? Well, same here. The UDP are the bad guys and you are the good guys.

Basically the theme is simple. You have to capture or neutralise the UDP Fleet as they seek to take over your territory. This may involve destroying or capturing ships or outposts, patrolling waypoints and generally making yourself a nuisance to the other guys.

There are twenty preset missions you can play ranging from very easy through

to very hard. Of these you can play them all at different skill levels from easy, where the odds are stacked in your favour, through intermediate to advanced, where they are not.

You command one of a number of different vessels that are given to you at the start of each game. Some vessels are not commandable by you until you reach a certain rank. In most scenarios you have a number of different ships under your command, each with its own captain who has his or her own faults and foibles. One guy just kept on running away despite having one of the best ships on the block!

You play the game from four main screens - navigation, communication, tactical and data retrieval. There is an initial screen for disk operations like choosing your game, choosing your fleet commander, and creating new scenarios. Yes, if you get bored with the games provided you can make your own with the game builder!

The tactical screen is the one where you spend most of your time. This is the attack and defence place, where you can do some simple navigating as well. From

here you control your shields, your attitude (so that shots will hit particular shields if possible) and your missiles and EBW. What's an EBW? An enhanced beam weapon. What's wrong with the good old fashioned Laser?

There are a number of different missiles, each with their own capabilities and different EBW modes as well.

The data retrieval screen gives you information about the fleet, individual ships, damage control on your ship and access to information about your opponent and your own fleet captains. You also get your mission briefing and evaluation form here.

The game is supposedly part of an "Interlocking Game System" where if you have the other program in the suite (for *Rules of Engagement* it is *Breach II*) then when the appropriate moment comes, *Rules* will load *Breach II* so that it just becomes part of the other game. Pity I haven't got *Breach II* to try it out.

Sound good though, and a very interesting idea. If you think this sounds like a mega game, it is.

The manual is well written, but very weighty. Still worth a good look through.

My main criticism is simply that it just doesn't feel like an Amiga game. The graphics are good but ... not quite there. A bit clinky in places.

The sounds are okay, and used in tasteful moderation.

And joy of joys, it is not copy protected, and it is hard disk installable. Compatible with a 68030 and WorkBench 2 as well as multitasking. *Rules of Engagement* also has a pause control and can save mid-game! What more can you want? It's a great game - now for one more try before I turn off.

Graphics 70%

Sounds 85%

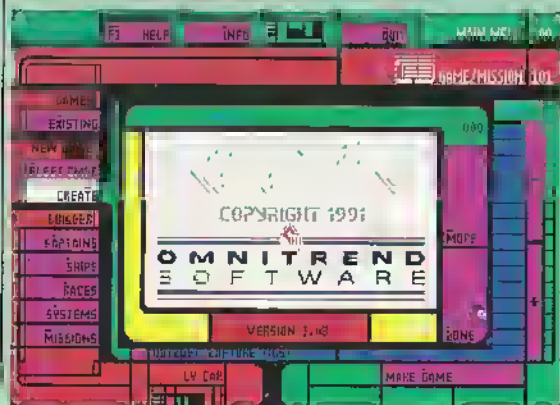
Playability 80%

Addictiveness 85%

Challenge 90%

Overall 82%

Distributed by Electronic Arts (075) 911 388. RRP \$69.95.



Feel like some mischief? Wanna go back to childhood?
Then here's your chance as Phil Campbell playtests

The Adventures of Willy Beamish

In my case, it doesn't take much effort to imagine the antics of a nine year old boy. Nathan, my number one son, turns eight in a few weeks time - so all I have to do is extrapolate a little. The results don't bear thinking about, which must mean I'm turning into an old fuddy duddy. Which simply won't do.

The Adventures of Willy Beamish is the perfect remedy. This beautifully animated adventure game puts you in the shoes of trouble prone nine year old Willy Beamish. You'll face the ordeal of living with a pair of neurotic yuppie parents. Of a big sister who's always talking to boyfriends on the phone. And a pesky little sister who always wants you to push her on the swing. Hmmm. Wonder how hard you'd have to push to make her do a loop? (You'll find out!)

Naturally, there's more to a nine-year-old's life than the family. Add a giant pet frog named Horny, a vampirish "baby-sitter from hell", and a deranged mob of bad guys plotting to blow up the

city's sewer system and you've got the makings of quite a story. The aim of the game is simple.

First, make sure Horny wins the Tootsweet Frog Jumping Contest.

Then use the prize money to get to the city for the Nintari Computer Games Championship - and win.

And, if you get around to it, save the city.

All the action in the game is mouse controlled - as you move around the screen the pointer changes to indicate possible actions and movements. If you can pick something up, the pointer highlights it. If you can move off in a certain direction, the pointer becomes an "exit" sign. And if you can talk to a character, the pointer becomes a comic-book style "speech bubble."



The game begins at the end of the school term. Freedom! You've just arrived home, and you're standing outside the front door. A click on the mouse button takes you into the foyer. The decor is tasteful - polished wooden floors gleam in the sunlight, and the furniture is stylish. A stairway leads up-stairs, there's an

archway to the right, and the doorway to the kitchen is straight ahead. Your "intelligent pointer" tells you that you can move in any of the three directions. Feel free to take a look around!

Before you go, you notice the red light on the answering machine is flashing. Better check the calls. Beep. "Mr Beamish, the payments on your Grange Rover are overdue. Put a cheque in the mail, or we'll tow it away." Beep. "Mr Beamish, this is Principal Frick. We're still having disciplinary problems with your son Willy. Please contact..."

Mmmm. Another quick click on the mouse button and the messages are safely erased. A close call!

Then it's up the stairs as quick as you can for a quick game on the Nintari before Mom orders you to do

some chores. Life as a nine-year-old is precariously balanced. Do you come when she calls? Or have one more game? A meter on the screen will keep you apprised of the current state of parental anger. I'm running just below "melting point."

Graphics in *The Adventures of Willy Beamish* are spectacular. In a strange case of technology-gone-backwards, the backgrounds were originally handpainted and crayoned - they're soft edged, bright and colourful, and bring Willy's home town of Humpford to life. Traditional cell animation techniques have been used too, and the results speak for themselves. Some sequences are so close to the quality of a TV cartoon that you'll need your glasses on to pick the difference.

Overall, this is a nice little game. And I guess all the family would enjoy it. Mind you, I'm not planning on showing it to Nathan just yet - he doesn't need any extra help at getting up to mischief.

Distributed by Ozisoft (02) 3136444.
Amiga RRP \$69.95.



Number One Compilation

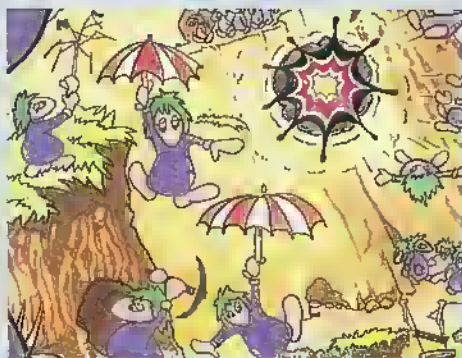
*Wings, Lemmings, Pro Tennis
Tour, Shadow of the Beast 2*



Christmas has come and gone, but if you look around the bargain bins you'll still find some great bargains. And here's one compilation worth watching for. Juris Graney checks out a pack featuring four of the best.

As I looked around, I caught a glimpse with the corner of my eye - a red plane, right behind me. This was to be my final flight against the Jagdstaffel. Another came into sight. And then another. Pulling back on the stick, I climbed sharply, only to stall and start plummeting towards the ground at a deathly rate.

As I started losing consciousness my body slumped forward onto the controls. Then nothingness ... Sitting up, I find tiny green creatures running around me. Wait a minute ... I'm green too. My companions are walking towards a cliff, and I've got an incredible compulsion to follow them. Plop. The leader of the pack has fallen into a pit of boiling lava. Plop. Plop. Two more. I keep walking towards the cliff in a sort of a trance. I was next. My small pink feet walk off the cliff and I start descending into the lava. I close my eyes and dream of my favourite sport. Tennis. "40 love".



A voice booms over a loud speaker. I stare at my opponent at the other end of the court. He lobbs the ball into the air and smashes it at me. The ball rockets towards me at an alarming pace. Instinct takes over. My tennis racket comes onto the ball and smashes it back at him. He swings his racket but misses the ball completely. He throws his racket onto the ground in anger, and it spring up and hits me squarely in the forehead.

My feet pound across the ground and into the valley. I keep running until I meet a Woodsman. Swinging my mighty mace I clunk him one across the head. He falls to the ground with a heavy thud. I keep running, but to my surprise a woodsman jumps from the tree and throws a spear at me. It gouges into my leg.

Only one hope remains - I press Ctrl-Amiga-Amiga and the game resets. What a relief. I live to fight another day.

Now back to the real world. The *Number 1 Compilation* certainly lives up to its name. There's no doubt that it's the best to date - *Wings*, *Lemmings*, *Pro Tennis Tour* and *Shadow Of The Beast 2* are all superb titles. Put them together, and you've got a genuine bargain, and a top class collection.

Wings has great sound effects, great graphics and is extremely addictive. *Lemmings* has been voted "Computer

game of the year." When you play it you will understand. It's so damn addictive I have to fall asleep at the keyboard to stop myself from playing it. The graphics are small but brilliant and it has excellent sound effects and music.

Add *Pro Tennis Tour*, the best tennis-sim to date, and you've got a strong package. But there's more.

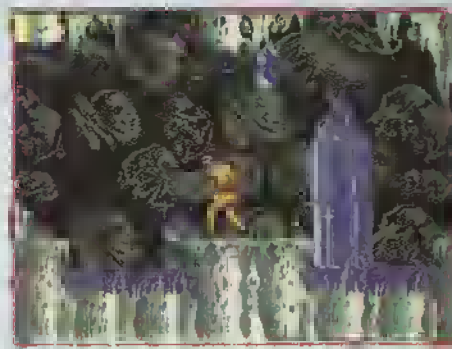
Shadow of the Beast 2 is the best of the lot. It's got the best graphics I have ever seen in a game on the Amiga. The gameplay is enthralling, and the music and sound effects are better than brilliant.

If you have some money left over from your Christmas shopping, or if Santa gave you some cash that you haven't spent yet, this is the obvious way to spend it.

Ratings:

Graphics:	84%
Sound:	80%
Gameplay:	86%
Value:	90%
Overall:	89%

Distributed by Questor (02) 662 7944.
Amiga RRP \$



MICHAEL SPITERI'S

Adventurer's Realm

Welcome to the Realm - Australia's only magazine column dedicated to informing and helping those who tackle adventure games on Commodore computers. If you are stuck in an adventure, check out our list of free hint sheets, or one of the many Clever Contacts. If you still haven't found the solution to your problem, send your problem here and you'll see it appear on these pages for thousands of adventurers all over Australia to think over.

The address for adventure problems, eh!-chat, rumours, hints and tips, etc. is: Adventurer's Realm, 12 Bridle Place, Pakenham, Vic 3810.

Kamikaze Andy resides in his dungeon to help those stuck in RPG games. His address is:

Realm's Dungeon, P.O. Box 315, Maddington, WA 6109.

If a reply is expected, you **MUST** enclose a stamped addressed envelope.

The Official Adventurer's Realm Hint Books

The first Official Adventurer's Realm Hint Book is no longer available from newsagents. We still have a few more copies left if you'd like one. Phone (02) 398 5111 to order your copy, at only \$9.00.

The second Official Adventurer's

Realm Hint Book is currently at the printers, and is due for release shortly. Titled 'Computer Adventure Games - Hints & Tips', it will also be available from newsagents all over the country.

Look out for the dragon on the front cover!

Free Hint Sheets

The following hint sheets are free! Just select up to four of your choice, and send a stamped addressed envelope to: Free Hint Sheets, 12 Bridle Place Pakenham, Vic 3810.

Zak McKracken, Maniac Mansion, Indy, Zork I, Zork 2, Zork 3, Bards Tale I, Bards Tale II, Bards Tale III, Guild of Thieves, Jinxter, Pawn, Fish, Uninvited, Deja Vu, Hampstead, Hitchhikers Guide, Faery Tale, Borrowed Time, NeverEndingStory Pt1, Dracula Pt2, Hobbit, and Clever Contacts Complete Listing.

Bargain Basement

Peter Boothman of Brunswick Publications (P.O. Box 458, Bondi Junction, NSW 2022) has replied to the many pleas of C64 adventurers unable to find good adventure games.

Peter has a special disk pack containing over 20 top quality public domain adventures (a mixture of text and graphic) for only \$15. That's \$15 for five disks! That works out to be less than 75 cents a game! However, this offer is only available by mail, and only to those who mention Adventurer's Realm. Send a cheque for \$15 made out to Brunswick Publications to the address above, and you'll soon receive enough games to last a decade!

Meanwhile, if you can afford to splurge out a little more cash, the Maxwell Computer Centre, 162-164 Nicholson St, Abbotsford in Victoria has a huge range of adventure games for the C64, Amiga, and Commodore PCs. Write to them or drop in for a free catalogue.

Finally, bargain hunters might like to check out their nearest Pacific Microlab for some discount software in the \$15 - \$25 dollar range for the Amiga and PC.

The Fountain Gate store (Vic) has titles such as *Kristal*, *Balance of Power*, *Leather Goddesses of Phobos*, etc for under \$25.

Top 10

Adventure/Strategy (combined Amiga/PC)

1. Leisure Suit Larry V
2. Kings Quest V
3. Willy Beamish
4. Police Quest III
5. Heart of China
6. Eye of the Beholder
7. Monkey Island
8. Might and Magic III
9. Kristal
10. Centurion: Defender of Rome

Top 10 is kindly compiled by Pacific Microlab - Fountain Gate (Vic), from November /December 91 sales figures

Realm's Chit - Chat

Aaron Davis of Werribee in Victoria writes:

"I would like to compliment you on the CleverContacts section of the Realm I have previously called upon the assistance of one of these contacts and received extremely helpful bints. I would also like to thank you for all the help the Realm has provided me with in previous months. It has helped in an uncountable number of games, and I find the Chit Chat section very interesting. I have found that the Adventurers Realm has always been of a very high standard."

MS: Thanks for the compliments Aaron, we are glad you like the Realm. I'd like to pass the compliments to the

many Clever Contacts whose voluntary work has been invaluable, and of an exceptionally high standard.

Jim Fang of Brentford Square in Victoria is stuck with a bung *Personal Nightmare* Disk (1), and would be grateful if anyone could give him a copy of this disk. He has sent the original to the Realm, so it is a genuine plea, not a pirate's request. Jim is willing to return the favour with some public domain software, or a disk of hints and tips. Jim's address is P.O.Box 539, Brentford Square, Victoria 3131.

Raymond Huntley of 136 Warrendine Street, Orange, NSW 2800 has a number of adventure and roleplaying games to swap for the Amiga.

I must stress though, that I will only display games to swap that are older and

no longer available. Remember, we have a software industry that needs supporting.

A big thank you goes to Allan Mills of Holt in ACT, and Robert Cameron of Kangaroo Flats for their donation of valuable hint sheets to the Realm.

Stuart George of Springvale writes:

"Seeing that *Mystery House* (by Roberta Williams of Sierra fame) was released into the public domain recently, I was wondering if you could ask the readers of *Adventurer's Realm* if anyone has a copy that runs on the PC they are willing to copy or sell. I am also looking for a copy *Lurking Horror* or *Myth* on the PC, so if anyone has a copy, I'd be willing to buy it."

MS: Your questions have been asked! Let's see if anyone answers.

Problems, Problems & more Problems or the Troubled Adventurers Dept.

Peter Koinyshaw cannot seem to pass the snake or use the transportation tube in *Arazoks Tomb*. The transportation tube would be to start the power plant.

Peter is also stuck in *Chrono Quest*. He has completed the chateau and the prehistoric level, however he cannot finish the Mexico section even though he has found the temple. The Egypt section has Peter bewildered to say the

least!

MS: Clever Contact Mark Harris - January Issue, has offered a fairly detailed solution to these problems, so it might pay to drop him a line.

Letters are rare from the Northern Territory. Michael Loersch of Darwin is currently tackling *Knight Orc*, and his current problem is an inability to get followers. Can anyone cure this troublesome inability?

Ian Myers of Charnwood in ACT would love some general hints on *Legend of the Sword*.

Aaron Upcroft has collected a dozen or so problems to ponder upon. First up, in *Fish*, once through the trapdoor, how do you return safely to the tower? What is Bertie Bream's password? How do

you get into the computer program?

Then, in *The Hobbit*, Aaron writes:

"Most hints I have come across about killing the dragon say to tell Bard to SHOOT DRAGON. This may be so, however once at the front of the Lonely Mountain, I tell Bard to GO NORTH to get to the dragon, and by the time I get there, he is already dead! What do I do?"

Aaron also asks if there is a way into the "small hole that always disappears as quickly as it appeared" at the back entrance to the Lonely Mountain?

Finally, if Aaron has any hair left after trying to solve the above problems, then he has lost it trying to solve *Not A Penny More, Not A Penny Less*. All he wants to do is to purchase the disguises! Does anyone know the exact commands?

Help, Help & more Help or the Smart Adventurers Dept.

Game: *Deja Vu II*

For: Tony Finn and Dale Priem (December)

From: Ian Myers, Charnwood, ACT
Help: Show the news clipping from Ace's wallet to the correct Blackjack dealer, play at that table, use 'Hold down shift/select/diag' on any chips won, and double your bets!

Avoid the laundry until you have collected Bondwell's suitcase from Las Vegas Railway Station. The claim check

is at the Chicago morgue.

Wear the cop's uniform from Sugar Shack's apartment to the Morgue, check corpses, IDs, ask the clerk for the effects of each person named.

Game: *Eye of the Beholder*

For: Raymond Huntley (December)

From: Graeme Beaven, Wyong NSW.

Help: Top open the blocks north of the level 2 entrance you need to take the items from the shelves in three locations. Go north through five doors to one

shelf. Go east from ladder through door. To close pit holes, pull levers and throw a rock on the pressure plate. Go south from ladder then east. Watch your compass at the intersection.

To get out, walk through illusionary walls and watch your compass.

Game: *Dungeon Master*

For: David Heydon (November)

From: David McKinney, Leichhardt, NSW.

Help: Go through the 'enter with caution' door (which needs the ruby key from level 11) and follow the corridor to the west. There is a button on the south wall along here that should be pressed. In the room at the end of the corridor is a turquoise key under some ashes.

This will open one of the four doors

seen earlier (the other three can never be opened).

Return the same way and a new corridor will have opened up. Follow this until you come to a button on the left wall. Press the button and backtrack to find a winged key. This is all that is needed to gain access to the firestaff's chamber. To get the firestaff, a master key from level 12 is needed.

Game: *Ultima V*

For: Wayne Phillips (November)

From: David McKinney.

Help: To climb over the mountains you need to use the grapple. Try asking Lord Michael in Empath Abbey about it. As for the fighter in Trinsic, if he doesn't know about 'word' or 'mantra', forget about him.

Clever Contacts

Update - David McKinney of 126 Norton Street, Leichhardt, NSW 2040 can now help in the following games: *Captive (5 missions)*, *Buck Rogers: The Countdown to Doomsday*, *Ultima V*, *Eye of the Beholder*, *Secret of the Silver Blades*, *Phantasia 3*, *Death Knights of Krynn*, *Chaos Strikes Back*, *Hobbit*, *Dracula*, *Bards Series*, *Pool of Radiance*, *Ultima 3-4*, *Hitchhikers Guide*, *Dungeon Master*, *Champions of Krynn*, *Kings Quest*, *Corporation*, *Curse of the Azure Bonds*.

Stuart George, of 66 Sharon Road, Springvale, Vic 3171 can now help in *Corruption*, among many others.

Suspicious Cargo

Seasoned adventurer Michael Spiteri checks out the first major adventure release for '92, and decides that it's pretty good stuff. Read on as he sniffs out Suspicious Cargo.

Howdy folks, Jonah's m' name and smugglin's m' game. We have a little problem here, that being that I've just taken out a bleedin' great mortgage to renovate my ship the *Lucky Lady*, and those bignoses from the finance company don't act very nice when it comes to delayed repayments, and are currently in the process of reclaiming MY ship.

Now it seems if I smuggle some cargo for them to planet Earth, they'll reconsider the repo.

Well, as I was saying, I'm pretty good at smuggling, so the sooner I get out of this coffin and back to my ship, the better!!

Tell ya what though, a nice warm glass of metagalactic ale wouldn't go astray!

So the scene is set for the first major

text/graphic adventure game of 1992. The plot simply has you controlling our hero Jonah Hayes on this exciting mission to deliver the suspicious cargo, and hopefully help him retain ownership of the *Lucky Lady*.

A Hollywood style introduction sequence sets the pace, with 'Hoyts' style logos, digitised graphics, and nice n' loud theme music thrown in for good measure, and before you know it you wake up in a coffin. Not your average dead person's coffin, mind you, this is the latest in modern accommodation - the coffin hotel. It contains the basic necessities such as a pillow, a mirror, and luggage compartment. What more do you need!

Anyhow, Jonah is woken up by a someone (or something) knocking on the coffin door, and lo and behold, we



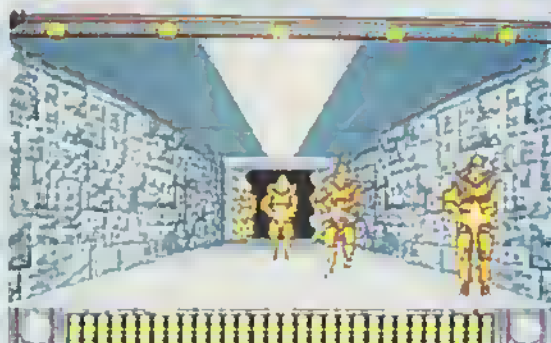
have the messenger of good tidings with a nice little letter from the finance company.

Surely the mission cannot be as simple as just delivering a crate containing a genetic mutant warrior?

Well, the first problem is this courier dude. You have to handle him correctly, or he'll call in Mr Big to really clean you up.

A visit to the local drink hole and you come across a detective chatting up the bannaid. You can't disturb these two while they are deep in conversation.

At this stage the detective doesn't seem too interested in your problem,



and he eventually leaves. You leave too, but not after spotting something that could be of interest behind the bar.

Finding the *Lucky Lady* isn't much of a problem, however you could imagine that getting genetic mutants off this planet past customs is not going to be an easy task, and if anyone out there in adventureland can advise me on how to blast off before the spaceport heavies finish me off, then maybe I get a little bit closer to completing the game.

Currently I have scored 60 out of 1000.

Original adventurers who liked the Infocom and Activision adventure will grow deeply attached to this game, it features detailed text descriptions and allows text commands to be entered via the keyboard. Text commands? Remember those? However, since a majority of today's adventurers don't know how to use the keyboard, a whole range of icons are available, making the game completely playable with a mouse.

Occasionally a little beeper will go off in the corner and you have the option of looking at the pretty graphics that depict the location you are at. Another beeper will let you know about one of many arcade sequences (yes, they had to be included) that, according to the manual, "should be treated as a visual representation of a text puzzle". You don't have to play these, but they are there if you want to!

The playing screen is split up into a number of sections, with the top couple of centimetres containing icons to configure the text and graphics.

You can set the text to nice and beefy verbose, or trim and terrific brief.

Then there are four mini TV screens, and any characters you come across will be displayed here (in digitised form). These can also be manipulated as desired.

Then you have all the control icons, and there are over 30 of these stacked along the left side of the screen. To the right of the screen there is the descriptive text, and if you want, you can make the entire screen just contain the text to give it that Ol' Infocom feel.

Finally, the bottom inch of the screen contains the direction icons. Arrows here flash to indicate the available exits, and pointing at one results in your character moving in that direction.

When Jonah is in his *Lucky Lady* spacecraft, a map can be called up, and Jonah can move to any place on the map just by pointing to it. Nice touch eh?

In fact, it is the considerable attention to gameplay that makes this game so good. The feel of a futuristic post-nuclear world is strong, and the graphics do

well to enhance the gloomy atmosphere.

The "Dirty Harry" style humour is well placed and suits the setting. The plot is interesting and amusing, and the problems are plentiful, especially after Jonah and the *Lucky Lady* finally take off. He'll have to face a pirate attack, deal with an escaped illegal pet alien, escape Galactic police and answer distress signals!

There are many interesting characters for you to chat to, including the ship's computer Babbage!

A detailed booklet explains all you need to know to play this game, as well as some hints to get you started.

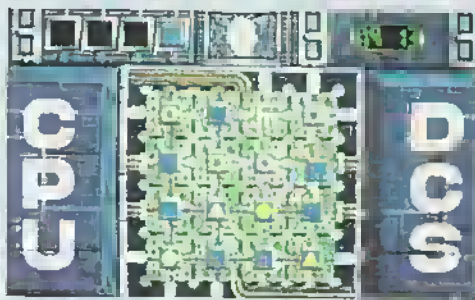
Overall, what we have here is an adventure that was put together on a big budget by a group of very professional programmers, and this shows clearly throughout the package!

Anyone who buys this game is eligible to enter the Jonah Lookalike contest, with the prize being a crate full of goodies. The competition closes March 31st, so overseas entrants still have a chance to win.

Well guys, enough of this warbling, Jonah has a job to do, and time is running out quicker than you can say "Generic Mutant". Sooner or later I'll get some help out of that lazy cop, and we can get down to business. You're all welcome to join me ... I'll put some hairs on your wimpy chests!

Now, about that Metagalactic Ale, I know a bannaid ...

Distributed by Mindscape (02) 899 2277. Amiga RRP \$69.95.



The Dungeon by Kamikaze Andy

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A computer role-playing game is probably seen by many as being the most difficult of all entertainment software genres. Thick manuals, multitudes of disks, and labels on boxes that scream "This game will require 100 hours to complete!" probably scare off a few potential RPGers.

This is quite a shame, as the satisfaction of playing and actually completing a role playing game is probably second only to activities of a physical nature between two humans that will remain nameless (this is a family magazine!).

Basic tips on RPGs

Anyway, this month I've decided to outline a few basic tips on playing RPGs. While aimed at novice role players, veteran gamers might be interested in knowing how I personally tackle a RPG (maybe you could send in a few of your own techniques).

First step. Psych yourself to the task ahead. Most RPGs will take up quite a bit of your computing time, especially once you're hooked! Don't expect to finish a RPG in a few hours ... or even a few days.

Clear your mind, take a deep breath, and then tackle the game. Most importantly, make sure you're enjoying it (give it a few hours ... if you're more frustrated than excited after some heavy sword'n'sorcery, then perhaps RPGs are not for you!)

It's recommended that you thoroughly read the game manuals included in your RPG package before trying the game. Unlike manuals for flight sims or strategy games, RPG manuals are relatively short and often interesting. Usually manuals will provide some back-

graphs. Most of the possible functions and options in your RPG will be explained in the manual, as well as a few shortcuts (often "hotkey" commands, where you can press a function key to bring up inventory, for example, instead of having to click all over the screen with your mouse).

Finally, manuals often include VITAL information on the game's magic system, including spell lists and costs, effectiveness of spells, and so forth.

Similarly, have a look at other aspects of the packaging. The box which contained your RPG may have one or two screenshots that unwittingly reveal a few hints. A famous case of "helpful packaging" is the order form for a *Chaos Strikes Back* hintsheet included in the box. The order form itself had (as an example, of course) a very useful map of one of the hardest levels in the game!

Characters

Some RPGs "force" you to use characters whose statistics have often been predetermined, but most include a Character Creation option. When choosing a party of characters, try to maintain a balanced mix between fighters and magic users. I consider the latter to be of greater importance than the former, since mages can be forced into melee combat if needed, but fighters usually can't cast spells if your mages have been killed!

For an average party size of six, try to have at least two magic users (one of the mage type, with offensive and defensive spells, and one of the cleric type, with healing spells). The best compromise is to create a mixed class character, a fighter/mage for example.

Some games will allow this (notably SSI's AD&D RPGs) but some will not. Always have a Paladin if the game allows for such a class. Except for the magic users, try to vary the other classes a little. A pretty ideal party (assuming that mixed class characters are NOT allowed) would consist of: a Paladin, a Fighter, a Thief, 2 Mages, and a Cleric. Many RPGs revolve around combat. Once you've built up your party, the fear of dying won't be as prevalent as it is when you've just started playing.

Some useful combat tactics include using ranged or missile weapons (bows and arrows being preferred).

Always cast a few spells! Not only does this build up your spellcasting experience, many offensive incantations often strike from a distance and get rid of the enemy before they enter melee range.

Mapping

Perhaps the most unpleasant task of any RPG is mapping. Fortunately most of the latest games have a wonderful feature called automapping.

Simply click on the relevant button to bring up a description of the places you've visited. If you HAVE to map a maze, graph paper from a newsagent will come in handy. Ultima-type games (overhead view) hardly require mapping, so it's those 3D Dungeon Master RPGs that are troublesome.

If you don't want to map, try doing a *Zork* and drop a few useless objects around the place to mark important locations. Also, you might want to totally complete one maze level at a time, so that you won't have to return to that same maze later in the game. I detest mapping. I just memorize each level without committing them down to paper. Of course, that's also why most of my hintsheets don't come with maps.

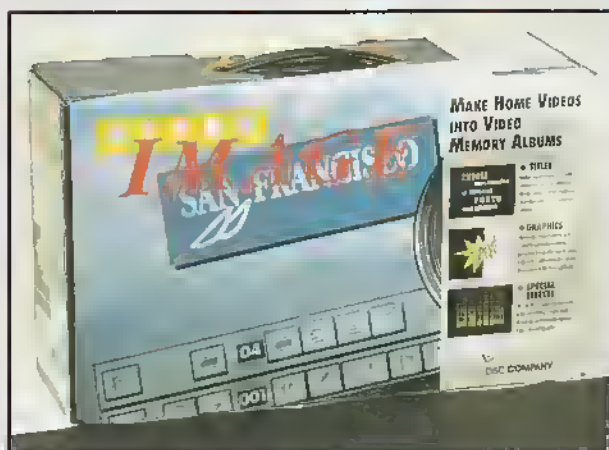
Finally, as a last resort, the RPGer ready to rip his or her hair out can seek some solace from the many hint books available for specific games. You can also write in to the Dungeon with your woes, and I'll be here with my shoulder ready for you to cry on.

Just remember that SAE!

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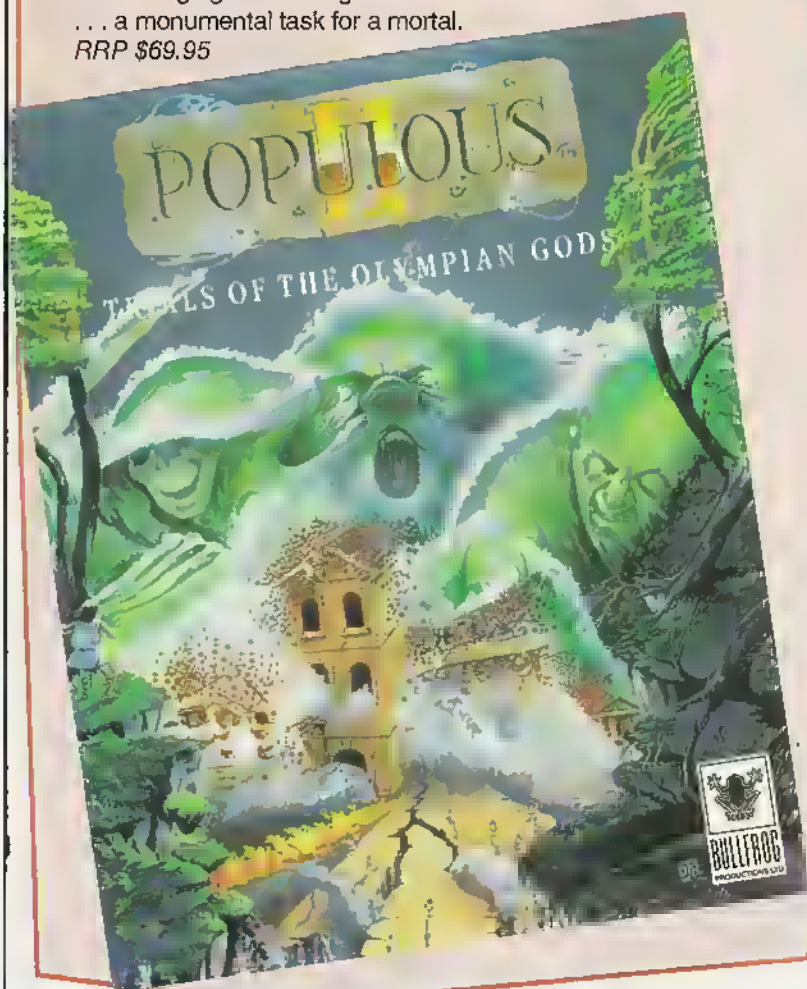
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